

## **TABLE OF CONTENTS OF SPECIAL PROVISIONS**

Note: This Table of Contents has been prepared for the convenience of those using this contract with the sole express purpose of locating quickly the information contained herein; and no claims shall arise due to omissions, additions, deletions, etc., as this Table of Contents shall not be considered part of the contract.

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**SEPTEMBER 9, 2020  
FEDERAL AID PROJECT NO. 1126(113)  
STATE PROJECT NO. 126-174**

**DERBY-SHELTON BRIDGE (NO. 01659)  
PEDESTRIAN AND BICYCLIST ACCESS IMPROVEMENTS**

**Towns of Derby and Shelton  
Federal Aid Project No. 1126(113)**

The State of Connecticut, Department of Transportation, Standard Specifications for Roads, Bridges, Facilities and Incidental Construction, Form 818, 2020, is hereby made part of this contract, as modified by the Special Provisions contained herein. Form 818 is available at the following DOT website link <http://www.ct.gov/dot/cwp/view.asp?a=3609&q=430362>. The current edition of the State of Connecticut Department of Transportation's "Construction Contract Bidding and Award Manual" ("Manual"), is hereby made part of this contract. If the provisions of this Manual conflict with provisions of other Department documents (not including statutes or regulations), the provisions of the Manual will govern. The Manual is available at the following DOT website link <http://www.ct.gov/dot/cwp/view.asp?a=2288&q=259258>. The Special Provisions relate in particular to the Derby-Shelton Bridge (No. 01659) Pedestrian and Bicyclist Access Improvements in the Towns of Derby and Shelton.

**CONTRACT TIME AND LIQUIDATED DAMAGES**

Seven Hundred Twenty Nine (729) calendar days will be allowed for completion of the work on this Contract and the liquidated damages charge to apply will be Two Thousand Four Hundred Dollars (\$2,400.00) per calendar day.

## **NOTICE TO CONTRACTOR - PRE-BID QUESTIONS AND ANSWERS**

Questions pertaining to DOT advertised construction projects must be presented through the CTDOT Pre-Bid Q and A Website. The Department cannot guarantee that all questions will be answered prior to the bid date. **PLEASE NOTE - at 9:00 am Monday (i.e. typical Wednesday Bid Opening) the project(s) being bid will be closed for questions, at which time questions can no longer be submitted through the Q and A Website.**

**Answers may be provided by the Department up to 12:00 noon, the day before the bid. At this time, the Q and A for those projects will be considered final, unless otherwise stated and/or the bid is postponed to a future date and time to allow for further questions and answers to be posted.**

If a question needs to be asked the day before the bid date, please contact the Contracts Unit staff and email your question to [dotcontracts@ct.gov](mailto:dotcontracts@ct.gov) immediately.

Contractors must identify their company name, contact person, contact email address and phone number when asking a question. The email address and phone number will not be made public.

The questions and answers (if any) located on the Q and A Website are hereby made part of the bid/contract solicitation documents (located on the State Contracting Portal), and resulting contract for the subject project(s). It is the bidder's responsibility to monitor, review, and become familiar with the questions and answers, as with all bid requirements and contract documents, prior to bidding. By signing the bid proposal and resulting contract, the bidder acknowledges receipt of, and agrees to the incorporation of the final list of Q and A, into the contract document.

Contractors will not be permitted to file a future claim based on lack of receipt, or knowledge of the questions and answers associated with a project. All bidding requirements and project information, including but not limited to contract plans, specifications, addenda, Q and A, Notice to Contractors, etc., are made public on the State Contracting Portal and/or the CTDOT website.

## **NOTICE TO CONTRACTOR - PORTLAND CEMENT CONCRETE (PCC) MIX CLASSIFICATIONS**

### ***SECTIONS 6.01 and M.03 MIX CLASSIFICATION EQUIVALENCY***

Sections 6.01 *Concrete for Structures* and M.03 *Portland Cement Concrete* have been revised to reflect changes to item names and nomenclature for standard Portland cement concrete (PCC) mix classifications. Special Provisions, plan sheets and select pay items in this Contract may not reflect this change. Refer to the Concrete Mix Classification Equivalency Table below to associate the Concrete Mix Classifications with Former Mix Classifications that may be present elsewhere in the Contract.

**Concrete Mix Classification Equivalency Table**

New Mix Classification (Class PCCXXXYZ <sup>1</sup> )	Former Mix Classification
Class PCC03340	Class "A"
Class PCC03360	Class "C"
Class PCC04460 <sup>2</sup>	Class "F"
Class PCC04462 <sup>2</sup>	High Performance Concrete
Class PCC04481, PCC05581	Class "S"

Table Notes:

1. See Table M.03.02-1, Standard Portland Cement Concrete Mixes, for the new Mix Classification naming convention.
2. Class PCC04462 (formerly Class "HP1" Concrete; also called low permeability concrete) is to be used for the following cast-in-place bridge components: decks, bridge sidewalks, and bridge parapets.

Where called for in the Contract, **Low Permeability Concrete** shall be used, as specified in Sections 6.01 and M.03. Please pay special attention to the requirements for Class PCC04462, including:

- Submittal of a mix design developed by the Contractor and a concrete supplier **at least 90 days prior to placing the concrete**
- Testing and trial placement of the concrete mix is to be developed and discussed with the Department

The Department will not consider any requests for change to eliminate the use of Low Permeability Concrete on this Project.

**NOTICE TO CONTRACTOR – MINIMUM CONCRETE COMPRESSIVE STRENGTH**

The concrete strength or allowable design stress specified in the General Notes is for design purposes only. The minimum compressive strength of concrete in constructed components shall comply with the requirements of Section 6.01 Concrete for Structures and Section M.03 Portland Cement Concrete.

## **NOTICE TO CONTRACTOR - COMPASS SUBMITTALS**

Upon execution of the Contract, the Contractor acknowledges and agrees that contractual submittals for this Project shall be submitted and handled through the Department's project management system, COMPASS.

Contractor submittals including, but not limited to, Shop Drawings, Working Drawings, Product Data, RFIs, and RFCs shall be generated and delivered by the Contractor in accordance with the Department's [COMPASS Contractor's User Manual](#). The administering District office will inform the Contractor of other deliverables required to be similarly submitted.

Access credentials for COMPASS will be provided free of charge to the Contractor.

The Department shall not be held responsible for delays, lack of processing or responses to submittals that do not follow the specified guidelines in the COMPASS Contractor's User Manual.

## **NOTICE TO CONTRACTOR – COORDINATION WITH CONCURRENT CONSTRUCTION PROJECTS**

The Contractor is hereby made aware that other on-going and/or future CTDOT construction projects are in the vicinity of this Contract and coordination is required in accordance with “Section 1.05.07 – Coordination with Work by Other Parties.” The Contractor will be required to coordinate work activities, lane closures and traffic operations with the following project:

- 36-184 – Route 34 / Main Street Improvements, Derby

The Contractor is hereby advised that they may be required to attend coordination meetings with the Department and the Contractors from the affected project as deemed necessary.

In addition to the above, the Contractor shall review and fully comply with the special provisions for “Section 1.08.04 – Limitation of Contractor Operations” located elsewhere within this Contract.

The Contractor shall schedule and arrange the work to minimize conflicts with the adjacent projects. The Contractor shall prepare two-week and two-month lookahead schedules as needed to share with the adjacent project’s contractors to assist in coordination of lane closures and traffic operations.

## **NOTICE TO CONTRACTOR – DEPARTMENT CONSERVATOR**

The Contractor is hereby notified that the Department of Transportation’s “National Register Specialist”, Mark McMillan, herein referenced as the “Conservator”, shall be permitted to evaluate the work performed and shall be provided with the same level of access to the work as that provided to the Department’s inspection staff.

The Conservator will have project involvement including, but not limited to, the following:

- Document the existing structure’s aesthetical elements for comparison and verification of preservation upon completion of the proposed work.
- Inspection of historic element protection measures to be implemented.
- Review and recommend approval of proposed work performed in accordance with the “Surface Repair Concrete”, “Parapet Concrete”, “Color-Matched Stain for Concrete”, and “Color-Matched Crack Sealant for Concrete” special provisions.
- Assist the Engineer and/or Designer with general issues that arise concerning the preservation/restoration of the bridge.
- All coordination with the Conservator shall be scheduled through the Engineer.

## **NOTICE TO CONTRACTOR - ELECTRONIC ENGINEERING DATA (EED)**

The EED is an assembly of engineering data files that were used to produce the Contract plans.

**Electronic Engineering Data (EED) is provided for information purposes only. In case of conflict between the EED and the Contract plans and specifications, the contract plans and specifications shall govern.** The EED has been reviewed by the Department for quality control purposes, but it is the Contractor's responsibility to build the Project per the contract plans and specifications.

The EED is being provided to the Engineer for GPS/RTS inspection. The Contractor may use the EED to assist in bidding, layout and Automated Machine Control/Guidance.

The EED includes geospatially-correct 2D CAD files and may include horizontal and vertical alignment data files, 3D surface model files (break-line features and triangles) and a preference file. The data is being provided in two formats:

- Native Format
  - Bentley MicroStation CAD files (dgn)
  - Bentley SS2 InRoads Alignment Files (alg)
  - Bentley SS2 InRoads Digital Terrain Models (dtm)
  - Bentley SS2 InRoads Preference File (xin)
- Converted Format (for use in GPS/RTS Site equipment)
  - AutoCAD CAD files (dxf)
  - Alignment files (xml)
  - Surface Models (xml)

For a complete list of EED files, see the EED file manifest (PDF) located in the EED\_0126-0174.zip file which is posted with the contract PS&E's on the State Contracting portal.

**NOTICE TO CONTRACTOR – FIRE DEPARTMENT, POLICE & EMERGENCY MEDICAL SERVICES**

The Contractor shall contact the Fire Department, Police and Emergency Medical Services in the City of Shelton and City of Derby, prior to the work and establish coordination necessary as to disruption of services during construction.

**NOTICE TO CONTRACTOR – GLOBAL POSITIONING SYSTEM (GPS)  
COORDINATES FOR SIGNS**

The Contractor shall obtain and provide to the Engineer sign installation data, including Global Positioning System (GPS) latitude and longitude coordinates, for all new State owned and maintained signs. The Engineer shall forward the sign data to the Division of Traffic Engineering for upload into the Highway Sign Inventory and Maintenance Management Program (SIMS). Sign data submissions or questions relating to SIMS or GPS shall be sent to DOT-SignInventory@ct.gov. Refer to the special provision for Section 12.00 General Clauses For Highway Signing.

## **NOTICE TO CONTRACTOR – HAZARDOUS MATERIALS INVESTIGATIONS**

A limited hazardous materials site investigation has been conducted at Bridge No. 01659, SR 712 over the Housatonic River in Derby/Shelton, Connecticut. The scope of inspection was limited to the representative components projected for impact.

Bridge No. 01659 is constructed entirely of unpainted concrete except for a small portion on the NE corner which had some grey graffiti cover-up paint that had non-detectable levels of lead. Since the paint had non-detectable levels of lead, any paint waste would be non-hazardous, non-RCRA waste.

All steel and metal generated from work tasks (painted or not) shall be segregated and recycled as scrap metal at a scrap metal recycling facility. The recycling of scrap metal (regardless of lead paint concentration) is exempt from USEPA RCRA and CTDEEP Hazardous Waste Regulation.

White fence caulk, light grey pipe packing, grey fibrous pipe insulation with tar coating, black tar in bridge wall and black sidewalk tar were sampled and found to contain no detectable levels of asbestos.

Potential universal waste (UW) (LED light poles with printed circuit boards) that is to be impacted was identified on the topside of the bridge.

No bird/pigeon guano accumulations or bloodborne pathogen concerns were identified at Bridge No. 01659.

The Contractor is hereby notified that these hazardous materials requiring special management or disposal procedures will be encountered during various construction activities conducted within the project limits. The Contractor will be required to implement appropriate health and safety measures for all construction activities impacting these materials. These measures shall include, but are not limited to, air monitoring, engineering controls, personal protective equipment and decontamination, equipment decontamination and personnel training. WORKER HEALTH AND SAFETY PROTOCOLS WHICH ADDRESS POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC HAZARDS ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

The Department, as Generator, will provide an authorized representative to sign all manifests and waste profile documentation required by disposal facilities for disposal of hazardous materials.

The Sections which shall be reviewed by the Contractor include, but are not limited to, the following:

- Item No. 0101143A – Handling and Disposal of Regulated Items

The Contractor is alerted to the fact that a Department environmental consultant may be on site for abatement and related activities, to collect environmental samples (if necessary), and to observe site conditions for the State.

Information pertaining to the results of the limited hazardous materials investigation discussed can be found in the document listed below. This document shall be available for review electronically.

- HazMat Inspection Letter, Bridge No. 01659, SR 712 over Housatonic River, Derby/Shelton, CT, TRC Environmental Corporation, June 15, 2020.

## **NOTICE TO CONTRACTOR – PROTECTION OF HISTORIC ELEMENTS**

The Contractor is hereby notified that Bridge Nos. 01659, which was originally constructed in 1918, is listed in the Historic Bridge Inventory published by the State of Connecticut and is eligible for the National Register of Historic Places. The bridge has been determined to consist of elements of a historic nature which shall be maintained, protected, and/or replicated throughout the duration of the construction project.

The character-defining features of the bridge include projecting arch rings and differential treatments of the surface of the concrete.

Each pier has a rounded base and engaged pilasters. An inverted conical decoration is cast into the base of the pier as it transitions from the square pilasters to the rounded pier footings. The articulated surfaces are further enhanced by different treatments of the concrete.

The parapets are concrete cast with coffered panels and capstones. At the top of each pilaster is a large baluster block. Between each of the pilasters, the parapets feature three coffered panels separated by smaller baluster blocks. The recessed coffer panels are accentuated by their finish in which the coarse aggregate is visible.

Any work on the bridge shall duplicate the historical concrete with concrete which matches it in form, color, and surface texture, particularly the exposed aggregate of the parapet details. See special provisions for Item 0601121A – Parapet Concrete and Item 0601890A – Color-Matched Stain for Concrete

Set into the pilaster blocks at the southeast and northwest corners of the bridge are bronze plaques commemorating the construction of the bridge in 1918. These plaques shall be removed, safely stored, and reinstalled onto the proposed concrete parapets as-is, without cleaning. This work shall be paid for under the Item 0201601A – Relocation of Historic Monument.

## **NOTICE TO CONTRACTOR – SALVAGE ITEMS**

NGS Benchmark – There is an NGS benchmark on the existing parapet that will be disturbed as part of this project. The Contractor shall salvage the disk and return to CTDOT Central Survey during/after demolition.

Historic Monument – There are commemorative bronze plaques mounted to the existing parapets at the northwest and southeast corners of the bridge. The plaques should be removed, carefully stored, and replaced at the location shown on the plans or as directed by the Engineer. The plaques shall not be cleaned. This work shall be paid for under the Item “Relocation of Historic Monument”.

**NOTICE TO CONTRACTOR - 1.05 CONTROL OF THE WORK**

**1.05.03 – CONFORMITY WITH PLANS AND SPECIFICATIONS (INCLUDING QUALITY CONTROL)**

The Contractor is hereby notified that a Quality Management Plan will be required for this Project in accordance with Standard Specifications Article 1.05.03 – Conformity with Plans and Specifications (including Quality Control).

## **NOTICE TO CONTRACTOR – FEDERAL WAGE DETERMINATIONS (Davis Bacon Act)**

The following Federal Wage Determinations are applicable to this Federal- Aid contract and are hereby incorporated by reference. During the bid advertisement period, it is the bidder's responsibility to obtain the latest Federal wage rates from the US Department of Labor website, as may be revised 10 days prior to bid opening. Any revisions posted 10 days prior to the bid opening shall be the wage determinations assigned to this contract.

<b>Check Applicable WD# (DOT Use Only)</b>	<b>WD#</b>	<b>Construction Type</b>	<b>Counties</b>
<b>XXX</b>	CT1	Highway	Fairfield, Litchfield, Middlesex, New Haven, Tolland, Windham
	CT2	Highway	New London
	CT3	Highway	Hartford
	CT5	Heavy Dredging (Hopper Dredging)	Fairfield, Middlesex, New Haven, New London
	CT6	Heavy Dredging	Statewide
	CT13	Heavy	Fairfield
	CT14	Heavy	Hartford
	CT15	Heavy	Middlesex, Tolland
	CT16	Heavy	New Haven
	CT17	Heavy	New London
	CT26	Heavy	Litchfield, Windham
	CT18	Building	Litchfield
	CT19	Building	Windham
	CT20	Building	Fairfield
	CT21	Building	Hartford
	CT22	Building	Middlesex
	CT23	Building	New Haven
	CT24	Building	New London
	CT25	Building	Tolland
	CT4	Residential	Litchfield, Windham
	CT7	Residential	Fairfield
	CT8	Residential	Hartford
	CT9	Residential	Middlesex
	CT10	Residential	New Haven
	CT11	Residential	New London
	CT12	Residential	Tolland

The Federal wage rates (Davis-Bacon Act) applicable to this Contract shall be the Federal wage rates that are current on the US Department of Labor website (<http://www.wdol.gov/dba.aspx>) as may be revised 10 days prior to bid opening. The Department will no longer physically include revised Federal wage rates in the bid documents or as part of addenda documents. These applicable Federal wage rates will be incorporated in the final contract document executed by both parties.

If a conflict exists between the Federal and State wage rates, the higher rate shall govern.

To obtain the latest Federal wage rates, go to the US Department of Labor website (link above). Under Davis-Bacon Act, choose "Selecting DBA WDs" and follow the instruction to search the latest wage rates for the State, County and Construction Type.

## **NOTICE TO CONTRACTOR - ARCHITECTURAL AND INDUSTRIAL MAINTENANCE COATINGS**

This Contract includes the application of materials subject to the Volatile Organic Compounds (VOC) content limits stated in the Regulations of Connecticut State Agencies (RCSA) Sections 22a-174-41 and -41a. All architectural and industrial maintenance (AIM) coatings and applications of such coatings must comply with these regulations.

The Contractor shall submit a Material Safety Data Sheet/Safety Data Sheet or Product Technical Data Sheet developed by the manufacturer of each material that may be subject to the Regulations. The submittal must verify both the type of AIM and its VOC Content. VOC content shall be determined based on the formulation data supplied by the materials manufacturer.

The Contractor may only use AIM coatings that contain VOCs below the respective coating category Phase II limits specified in Table 1 if either:

- a) the coating was manufactured on or after May 1, 2018, **or**
- b) the coating is being applied after April 30, 2021.

The Contractor may use AIM coatings that contain VOCs exceeding the respective coating category Phase II limits specified in Table 1 only if all of the following four conditions are met:

- a) the coating is being applied on or before April 30, 2021,
- b) the coating contains VOCs below the applicable Phase I limits specified in Table 1,
- c) the coating was manufactured prior to May 1, 2018, **and**
- d) the coating container(s) are dated (or date coded) as such.

For any coating that is not categorized within Table 1, the Contractor shall classify the coating as follows and apply corresponding limits in Table 1.

- Registers gloss <15 on an 85-degree meter or <5 on a 60-degree meter) – Flat Coating,
- Registers gloss of  $\geq 15$  on an 85-degree meter and  $\geq 5$  on a 60-degree meter) - Nonflat Coating,
- Registers gloss of  $\geq 70$  on a 60-degree meter - Nonflat-High Gloss Coating.

The Contractor must close all containers of coating and solvent when not in use.

Coating container labels must display the date the coating was manufactured, the manufacturer's recommendation regarding thinning with solvent, and the coating's VOC content in grams per liter (g/L) of coating. Certain coating categories as noted in Table 1 have additional labeling requirements.

The Contractor may add additional solvent to a coating only if such addition does not cause the coating to exceed the applicable VOC limit specified Table 1. The Contractor must adhere to type(s) of solvent and maximum amount of solvent recommended by coating manufacturer. VOC content of a thinned coating shall be the VOC content as listed by the manufacturer after thinning in accordance with its recommendation.

<b>TABLE 1</b>		
<b>Coating Category</b>	<b>Phase I</b>	<b>Phase II</b>
	<b>manufactured prior to May 1, 2018 VOC content limit (g/L)</b>	<b>manufactured on or after May 1, 2018 VOC content limit (g/L)</b>
Aluminum roof coating	--- <sup>1</sup>	450
Antenna coating	530	--- <sup>1</sup>
Antifouling coating	400	--- <sup>1</sup>
Basement specialty coating	--- <sup>1</sup>	400
Bituminous roof coating	300	270
Bituminous roof primer	350	350
Bond breaker	350	350
Calcimine recoater	475	475
Clear wood coating - Clear brushing lacquer <sup>2</sup>	680	275
Clear wood coating - Lacquer <sup>2,3</sup>	550	275
Clear wood coating - Sanding sealer <sup>2,4</sup>	350	275
Clear wood coating - Varnish <sup>2</sup>	350	275
Concrete curing compound	350	350
Concrete or masonry sealer/ Waterproofing concrete or masonry sealer	400	100
Concrete surface retarder	780	780
Conjugated oil varnish	--- <sup>1</sup>	450
Conversion varnish	725	725
Driveway sealer	--- <sup>1</sup>	50
Dry fog coating	400	150
Faux finishing coating <sup>2</sup>	350	350
Fire resistive coating	350	350
Fire retardant coating - Clear	650	--- <sup>1</sup>
Fire retardant coating - Opaque	350	--- <sup>1</sup>
Flat coating	100	50
Floor coating	250	100
Flow coating	420	--- <sup>1</sup>
Form-release compound	250	250
Graphic arts coating (sign paint)	500	500
High temperature coating	420	420
Impacted immersion coating	780	780
Industrial maintenance coating <sup>2</sup>	340	250
Industrial maintenance coating	340	250
Low solids coating	120	120
Magnesite cement coating	450	450
Mastic texture coating	300	100
Metallic pigmented coating	500	500

<b>TABLE 1</b>		
<b>Coating Category</b>	<b>Phase I</b>	<b>Phase II</b>
	<b>manufactured prior to May 1, 2018 VOC content limit (g/L)</b>	<b>manufactured on or after May 1, 2018 VOC content limit (g/L)</b>
<b>Multi-color coating</b>	250	250
<b>Nonflat coating</b>	150	100
<b>Nonflat high gloss coating<sup>2</sup></b>	250	150
<b>Nuclear coating</b>	450	450
<b>Pre-treatment wash primer</b>	420	420
<b>Primer, sealer and undercoater</b>	200	100
<b>Quick-dry enamel</b>	250	--- <sup>1</sup>
<b>Quick-dry primer, sealer and undercoater</b>	200	--- <sup>1</sup>
<b>Reactive penetrating carbonate stone sealer<sup>2</sup></b>	--- <sup>1</sup>	500
<b>Reactive penetrating sealer<sup>2</sup></b>	--- <sup>1</sup>	350
<b>Recycled coating</b>	250	250
<b>Roof coating</b>	250	250
<b>Rust preventive coating<sup>2</sup></b>	400	250
<b>Shellac Clear</b>	730	730
<b>Shellac Opaque</b>	550	550
<b>Specialty primer, sealer and undercoater<sup>2</sup></b>	350	100
<b>Stain</b>	250	250
<b>Stone consolidant<sup>2</sup></b>	--- <sup>1</sup>	450
<b>Swimming pool coating</b>	340	340
<b>Thermoplastic rubber coating and mastic</b>	550	550
<b>Traffic marking coating</b>	150	100
<b>Traffic marking coating</b>	150	100
<b>Tub and tile refinish</b>	--- <sup>1</sup>	420
<b>Waterproofing membrane</b>	--- <sup>1</sup>	250
<b>Waterproofing sealer</b>	250	--- <sup>1</sup>
<b>Wood coating<sup>2</sup></b>	--- <sup>1</sup>	275
<b>Wood preservative</b>	350	350
<b>Zinc-rich primer<sup>2</sup></b>	--- <sup>1</sup>	340

1 Classify as follows and apply corresponding limits in Table 1.

- Registers gloss <15 on an 85-degree meter or <5 on a 60-degree meter) – Flat Coating,
- Registers gloss of ≥15 on an 85-degree meter and ≥5 on a 60-degree meter) – Nonflat Coating
- Registers gloss of ≥70 on a 60-degree meter – Nonflat-High Gloss Coating

2 Container must be appropriately labeled. See RCSA 22a-174-41a

3 “Clear Wood Coating – Lacquer” includes lacquer sanding sealer

4 “Clear Wood Coating - Sanding Sealer” does not include lacquer sanding sealer

-END-

## **NOTICE TO CONTRACTOR – PUBLIC UTILITY PLANS**

The Contractor's attention is hereby called to the fact that included in the plans are plan sheets furnished to the State by various utility companies affected by the proposed construction. These sheets are not intended to show all proposed work in utility installations to be done by the various utility companies or municipal authorities or both before, during, or after the life of this contract. In addition to the work indicated on these plans, the utility companies and authorities may make adjustments to, or removal of, certain of their installations other than those indicated on the plans or may install facilities not indicated.

## **NOTICE TO CONTRACTOR - RIGHTS OF WAY RESTRICTIONS**

The Contractor is hereby advised that at the time of advertising for bids not all the property may be acquired by the State, certain residences and/or business establishments had not been vacated, and asbestos removal by others from buildings to be disposed of had not been completed. A complete listing of the affected properties and the anticipated dates that they will become available is hereinafter provided. The Contractor is further advised that limitations, as enumerated herein below, are imposed which may interfere with the physical construction of the project. Following are statements which will set forth the restrictions on the right of entrance to property and conditions governing construction of the project.

1) The Contractor shall not occupy properties that are unacquired, perform any work thereon, or inhibit access thereto until the properties have been acquired and right of possession has been obtained. If the Contractor is allowed to proceed with the physical construction of the project, no action will be taken that will result in unnecessary inconvenience such as the discontinuance of utilities, the prevention of ingress and egress to the property, or will result in disproportionate injury or any action coercive in nature to occupants of residences (businesses, farms, or non-profit organization) who have not yet moved from the right-of-way.

2) It should be anticipated that each of the properties listed herein may be considered to have an effect upon construction operations.

3) The Contractor shall be aware that extensions of time will be granted, if necessary, for delays in construction operations caused by continued occupancy of residences, properties being unacquired or asbestos abatement concluding beyond the estimated time period.

The following is a complete listing of properties which have not been acquired of September 9, 2020 with the anticipated dates such properties will be acquired.

<b>Serial No.</b>	<b>Owner</b>	<b>Status</b>	<b>Anticipated Completion Date</b>
1	Canal Bridge Lofts, LLC	Awaiting Funding	2/10/2021

**NOTICE TO CONTRACTOR – UTILITY TEST PIT DATA**

The following test pit data is for information only. The test pits were provided by the respective utility companies (Frontier Communications, UI Electric, Eversource Gas, and South Central Connecticut Regional Water Authority) in conjunction with CTDOT District 3 Surveys.

**FINAL COORDINATE VALUES  
FRONTIER TEST PITS  
2018**

**PROJECT:** 126-174 DERBY / SHELTON BRIDGE

**DISTRICT # 3 SURVEYS:** Located in P : 10-27-17-CT-045-EC-DERBY BRIDGE.dgn.

**FIELD BOOK:** Test Pit "L" Pg. 50-69

**OFFICE ENGINEER:** Francis Hamm

**DATE:** 12/10/18

**NAD 83 NGVD 88**

CONTROL	NORTHING	EASTING	ELEVATION	DESCRIPTION
MAG Nail	677,375.99	906,527.06	35.450	CP- 10
MAG Nail	677,177.25	906,293.37	35.457	CP -20
MAG Nail	677,013.67	906,127.83	34.050	CP-30

**FRONTIER TEST PITS**

	NORTHING	EASTING	ELEVATION	DESCRIPTION
<b>FTP-3</b>				
	677073.11	906112.64	32.70	CL Top 28" Wide Vault +- Top Ground over Vault
	677073.5	906114.1	35.50	
<b>FTP-5</b>				
	677091.62	906132.56	34.85	CL Top 28" Wide Vault +- Top Ground over Vault
	677090.6	906132.7	35.95	
<b>FTP-6</b>				
	677228.91	906282.94	36.15	CL Top 28" Wide Vault+- Top Ground over Vault
	677228.3	906283.0	37.41	
<b>FTP-11</b>				
	677348.78	906414.57	35.00	CL Top 28" Wide Vault +- Top Ground over Vault
	677347.4	906413.8	36.72	
<b>FTP-12</b>				
	677400.64	906471.90	33.30	CL Top 28" Wide Vault+- Top Ground over Vault
	677399.7	906471.1	36.16	

**FRONTIER TEST PITS**

	<b>NORTHING</b>	<b>EASTING</b>	<b>ELEVATION</b>	<b>DESCRIPTION</b>
<b>FTP-13</b>				
	677391.92	906492.92	32.20	CL Top 36" Wide Vault+-
	677392.4	906492.9	35.65	Top Ground over Vault
<b>FTP-4</b>				
	677084.12	906138.84	34.77	CL Top 36" Wide Vault+-
	677084.0	906138.7	35.6	Top Ground over Vault
<b>FTP-7</b>				
	677222.33	906288.79	36.20	CL Top 36' Wide Vault+-
	677221.4	906288.9	37.20	Top Ground over Vault
<b>FTP-10</b>				
	677341.77	906419.85	34.95	CL Top 36" Wide Vault+-
	677340.9	906419.7	36.36	Top Ground over Vault

**FINAL COORDINATE VALUES  
FRONTIER TEST PITS  
2020**

**PROJECT:** 126-174 DERBY / SHELTON BRIDGE

**DISTRICT # 3 SURVEYS:** Located in P : 10-27-17-CT-045-EC-DERBY BRIDGE.dgn.

**FIELD BOOK:** Test Pit "K" Pg. 61-66, 69

**OFFICE ENGINEER:** Francis Hamm

**DATE:** 06/25/20

**NAD 83 NGVD 88**

CONTROL	NORTHING	EASTING	ELEVATION	DESCRIPTION
MAG Nai	677,375.99	906,527.06	35.450	CP- 10
MAG Nail	677,177.25	906,293.37	35.457	CP -20
MAG Nail	677,013.67	906,127.83	34.050	CP -30

**FRONTIER TEST PITS**

	NORTHING	EASTING	ELEVATION	DESCRIPTION
<b>FMH</b>				
	677385.85	906858.8	36.10	Top Frame
	STA 29+03.1 - 8.0' Rt			
<b>FTP-32A</b>				
	677392.1	906462.9	33.63	Top Road Edge Vault
	STA 28+88.3 - 14.6' Lft			
	677392.2	906463.0	33.10	Top Pipe
	677392.2	906462.2	36.53	Top Conc. Walk
<b>FTP-33</b>				
	677372.4	906462.4	32.74	Top Edge Vault
	STA 28+74.6 - 0.1' Rt.			
	677372.1	906464.7	36.24	Top Bit.
<b>FTP-31</b>				
	677356.9	906424.3	35.05	Top Edge Vault
	STA 28+38.60 - 14.0' Lft			
	677357.8	906424.7	36.754	Top Bitt

**FRONTIER TEST PITS**

	<b>NORTHING</b>	<b>EASTING</b>	<b>ELEVATION</b>	<b>DESCRIPTION</b>
<b>FTP-30</b>				
	677333.7	906400.2	35.77	Road Edge Top Vault
	STA 28+02.6 - 13.4' Lft.			
	677335.1	906398.2	35.65	Top Rear Edger Vault
	677334.5	906395.5	36.80	Top Conc. Walk
<b>FTP-32</b>				
	677321.4	906385.9	36.97	Top Bit @ CL Pit-
	Pit data not shot, backfilled. Use data from FTP-27 as reference			
<b>FTP-28</b>				
	677286.3	906347.2	35.89	Top Road Edge Vault
	STA 27+31.5 - 14.2' Lft.			
	677288.1	906345.5	35.83	Top Rear Edge Vault
	677285.2	906347.7	36.22	Top Edge Elec. Vault
	677289.9	906347.3	37.30	Top Conc. Walk
<b>FTP-27</b>				
	677280.0	906350.4	35.62	Top Edge Vault
	STA 27+29.6 - 7.4' Lft.			
	677274.6	906349.5	36.59	Top Conc. Deck
	677276.7	906351.8	34.75	Top Arch
	677277.8	906355.3	37.05	Top Bit.
<b>FTP-25</b>				
	677279.8	906339.8	36.13	Top Road Edge Vault
	STA 27+21.6 - 14.4' Lft.			
	677281.8	906338.9	36.01	Top Rear Edge Vault
	677278.9	906340.3	36.30	Top Edge Elec. Vault
<b>FTP-25A</b>				
	677250.5	906319.2	35.47+-	Road Edge Top Vault
	677247.9	906323.8	37.18	Top Bit.
<b>FTP-22</b>				
	677252.6	906309.7	36.06	Top Road Edge Vault
	STA 26+87.0 - 7.0' Lft.			
	677254.2	906309.3	35.98	Top Rear Edge Vault
	677253.6	906307.7	37.37	Top Conc. Walk

**FRONTIER TEST PITS**

	<b>NORTHING</b>	<b>EASTING</b>	<b>ELEVATION</b>	<b>DESCRIPTION</b>
<b>FTP-20</b>				
	677185.5	906236.3	35.91	Top Road Edge Vault
	STA 25+81.6 - 14.7' Lft.			
	677186.8	906235.5	35.79	Top Vault
	677186.1	906239.4	37.16	Top Bit.
<b>FTP-19</b>				
	677177.6	906242.7	35.40	Top Edge Vault
	STA 25+81.0 - 4.6' Lft.			
	677178.8	906243.6	35.02	Top Pipe
	677176.3	906242.5	36.18	Top Conc. Deck
	677174.3	906243.1	37.00	Top Bit.
<b>FTP-15</b>				
	677120.7	906180.5	34.34	Top Edge Vault
	STA 24+96.7 - 4.5' Lft. - 14.4' Lft.			
	677119.1	906179.5	35.57	Top Conc. Deck
	677117.1	906180.6	36.17	Top Bit.
<b>FTP-16</b>				
	677128.4	906173.9	34.80	Top Edge Vault
	STA 24+97.0 - 14.7' Lft.			
	677128.8	906172.6	34.87	Top vault
	677126.2	906174.4	36.247	Top Bit.
<b>FTP-14</b>				
	677063.8	906105.4	33.60	Top Edge Vault
	STA 24+06.9 - 18.8' Lft.			
	677065.6	906105.6	33.62	Top Edge Vault
	677065.2	906106.4	33.7	Ground
	677066.7	906105.6	33.66	Top Vault
	677063.2	906105.6	35.28	Top Bit..
<b>FTP-14A</b>				
	677064.2	906119.5	35.09	Top Bit
	677067.1	906118.1	33.3	Ground
<b>FTP-34</b>				
	677057.5	906115.0	33.11	Top Edge Vault
	STA 24+06.4 - 6.4' Lft.			
	677058.5	906111.1	32.06	Top Edge Vault
	677054.1	906113.3	35.01	Top Bit.

# **FINAL COORDINATE VALUES UNITED ILLUMINATING TEST PITS**

**PROJECT:** 126-174 DERBY / SHELTON BRIDGE

**DISTRICT # 3 SURVEYS:** Located in P : 10-27-17-CT-045-EC-DERBY BRIDGE.dgn.

**FIELD BOOK:** Test Pit "L" Pg. 50-69

**OFFICE ENGINEER:** Francis Hamm

**DATE:** 12/10/18

**NAD 83 NGVD 88**

CONTROL	NORTHING	EASTING	ELEVATION	DESCRIPTION
MAG Nail	677,375.99	906,527.06	35.450	CP- 10
MAG Nail	677,177.25	906,293.37	35.457	CP -20
MAG Nail	677,013.67	906,127.83	34.050	CP-30

## **UNITED ILLUMINATING TEST PITS**

	NORTHING	EASTING	ELEVATION	DESCRIPTION
<b>ETP-1</b>				
	677024.90	906140.92	34.40	Top Conduit
	677025.9	906140.9	35.28	Top Conc. Walk over Conduit
<b>ETP-2</b>				
	677052.51	906170.24	35.38	Top Conduit
	677052.5	906170.1	35.86	Top Conc. Walk over Conduit
<b>ETP-5</b>				
	677306.90	906449.54	36.14	Top Edge Conduit
	677307.7	906449.0	36.65	Top Ground over Conduit
<b>ETP-6</b>				
	677367.80	906500.45	32.08	Top Edge Conduit
	677367.10	906500.98	33. 74	Top 2" Pipe - unknown
	677367.2	906500.9	35.54	Top Ground over Conduit

**UNITED ILLUMINATING TEST PITS**

	<b>NORTHING</b>	<b>EASTING</b>	<b>ELEVATION</b>	<b>DESCRIPTION</b>
<b>ETP-11</b>				
	677474.82	906532.62	32.30	Top Conduit
	677474.5	906532.6	37.40	Top Ground over Conduit
<b>ETP-13</b>				
	677449.34	906561.80	33.81	Top 6" Pipe
	677449.6	906562.0	33.94	Top 6" Pipe
	677450.4	906562.3	37.23	Top Ground over Conduit
<b>ETP-3</b>				
	677073.38	906118.89	33.83	Top Conduit
	677073.4	906118.7	35.47	Top Conc. Walk over Conduit
<b>ETP-4</b>				
	677088.96	906136.73	34.65	Top Conduit
	677089.5	906136.3	35.86	Top Conc. Walk over Conduit
<b>ETP-7</b>				
	677344.80	906414.85	35.88	Top Conduit
	677344.8	906414.8	36.68	Top Conc. Walk over Conduit
<b>ETP-8</b>				
	677394.43	906471.17	35.14	Top Conduit
	677393.5	906471.1	35.88	Top Conc. Walk over Conduit
<b>ETP-9</b>				
	677452.48	906533.67	32.76	Top Conduit
	677452.9	906534.5	33.70	Top Gas Pipe
	677452.9	906534.1	36.89	Top Ground over Conduit
<b>ETP-10</b>				
	677456.48	906537.11	33.10	Top Conduit
	677456.6	906536.9	37.02	Top Ground over Conduit
<b>ETP-14</b>				
	677437.49	906562.58	33.68	Top Conduit West Edge
	677437.0	906562.0	36.91	Top Ground over Conduit
<b>ETP-15</b>				
	677431.57	906558.46	33.29	Top Conduit West Edge
	677431.6	906558.3	36.82	Top Ground over Conduit

# **FINAL COORDINATE VALUES EVERSOURCE GAS TEST PITS**

**PROJECT:** 126-174 Shelton / Derby @ Bridge Street

**DISTRICT # SURVEYS:** Located in P Drive : SV\_D3\_126\_174\_SHELTON\_DERBY-BRIDGE\_TEST\_PITS.dgn

**FIELD BOOK:** Test Pit "J" Pgs.78-80

**OFFICE ENGINEER:** Francis Hamm

**DATE:** 8/8/18

**NAD 83 NAVD 88**

## **CONTROL NORTHING EASTING ELEVATION DESCRIPTION**

MAG	677177.25	906293.37	37.29	CP-20
MAG	677013.67	906127.83	34.05	CP-30
D.H.	677425.27	906495.25	36.33	SPUR-11
D.H.	676976.67	906075.55	35.04	SPUR-31

## **GAS TP 1-9**

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
549	677005.91	906133.04	31.46	Top 12" C.I. Gas @ GTP-1
550	677005.98	906133.70	32.73	Top Bituminous @ GTP-1
547	677009.36	906129.64	31.77	Top 12" C.I. Gas @ GTP-2
548	677010.32	906130.05	33.60	Top Bituminous @ GTP-2
545	677011.04	906127.52	31.40	Top 12" C.I. Gas @ GTP-3
546	677011.34	906128.31	33.85	Top Bituminous @ GTP-3
543	677051.67	906172.74	35.09	Top 12" C.I. Gas @ GTP-4
544	677052.22	906173.28	35.96	Top Bituminous @ GTP-4
541	677050.04	906174.26	35.09	Top 12" C.I. Gas @ GTP-5
542	677050.52	906174.69	35.98	Top Concrete Walk @ GTP-5
533	677304.43	906449.28	35.94	Top 12" C.I. Gas @ GTP-6
534	677304.34	906449.56	36.67	Top Concrete Walk @ GTP-6
535	677303.45	906451.08	36.73	Top Concrete Walk @ GTP-7

536	677302.98	906450.60	35.81	Top 12" C.I. Gas @ GTP-7
527	677372.10	906512.84	32.39	Top RCP Pipe @ GTP-8
528	677372.5	906512.8	29.5	Bottom Pit @ GTP-8
				No Gas Pipe Found
526	677371.34	906512.43	35.41	Top Bituminous @ GTP-8
530	677367.48	906516.37	30.67	Top 12" C.I. Gas @ GTP-8A
531	677367.87	906516.57	31.8	Cut Pipe Under Gas Valve
				No Connection To Gas Main
532	677367.33	906516.21	35.39	Top Bituminous @ GTP-8A
524	677374.21	906524.88	33.55	Top 12" C.I. @ GTP-9
525	677373.80	906524.36	35.40	Top Bituminous @ GTP-9

**FINAL COORDINATE VALUES**  
**SOUTH CENTRAL CONNECTICUT REGIONAL WATER AUTHORITY TEST PITS**

**PROJECT:** 126-174 Shelton / Derby @ Bridge Street  
**DISTRICT # SURVEYS:** Located in P Drive : SV\_D3\_126\_174\_SHELTON\_DERBY-BRIDGE\_TEST\_PITS.dgn  
**FIELD BOOK:** Test Pit "J" Pg. 78  
**OFFICE ENGINEER:** Francis Hamm  
**DATE:** 8/8/18

**NAD 83 NAVD 88**

**CONTROL    NORTHING    EASTING    ELEVATION    DESCRIPTION**

MAG	677177.25	906293.37	37.29	CP-20
MAG	677013.67	906127.83	34.05	CP-30
D.H.	677425.27	906495.25	36.33	SPUR-11
D.H.	676976.67	906075.55	35.04	SPUR-31

**SCCRWA WTP-1**

<b>PT#</b>	<b>NORTHING</b>	<b>EASTING</b>	<b>ELEVATION</b>	<b>DESCRIPTION</b>
521	677377.82	906519.24	29.08	Top Water Pipe @ WTP-1
522	677377.89	906519.50	32.56	Top RCP @ WTP_1
523	677377.46	906518.56	35.34	Top Bituminous @ WTP-1

## **NOTICE TO CONTRACTOR – PROTECTION OF EXISTING UTILITIES**

Existing utilities shall be maintained during construction. The Contractor shall verify the location of underground and overhead utilities. Construction work within the vicinity of utilities shall be performed in accordance with current safety regulations.

Representatives of the various utility companies shall be allowed access to the work, by the Contractor.

The Contractor shall be liable for all damages or claims received or sustained by any persons, corporations or property in consequence of damage to the existing utilities, their appurtenances, or other facilities caused directly or indirectly by the operations of the Contractor.

In order to notify utility companies the number 1-800-922-4455 (Call Before You Dig), in accordance with Sections 16-345 through 16-359 of the Public Utilities Regulatory Authority (PURA) state statutes, must be called at least two (2) full working days prior to the start of excavation. This notification will enable the utility companies to mark out their facilities in the field.

Contractors are cautioned that it is their responsibility to verify locations, conditions, and field dimensions of all existing features, as actual conditions may differ from the information shown on the plans or contained elsewhere in the specifications.

The Contractor shall notify the Engineer prior to the start of work and shall be responsible for all coordination with the Department. The Contractor shall allow the Engineer complete access to the work.

Any damage to any existing private and public utility, as a result of the Contractors operations, shall be repaired to the utility and Engineer's satisfaction at no cost to the State, the Town or the Utilities, including all materials, labor, etc., required to complete the repairs.

During the excavation for the proposed improvements, the cover over the existing underground Utilities will be reduced. Therefore, the Contractor shall have the location of the underground Utilities marked out prior to and following the excavation. The Contractor's attention is directed to the requirements of Article 1.07.13-Contractor's Responsibility for Adjacent Property, Facilities and Services.

Prior to opening an excavation, effort shall be made to determine whether underground installations, i.e., sewer, fuel, electric line, etc., will be encountered and, if so, where such underground installations are located. When the excavation approaches the estimated location of such installation, the exact location shall be determined by careful probing or hand digging, and when it is uncovered, proper supports shall be provided for the existing installation. Utility

companies shall be contacted and advised of proposed work prior to the start of actual excavation.

The Contractor shall perform all work in such a manner that will protect each Utility Company's facilities from damage. This may include excavation by hand methods as well as modified compaction methods when working close to underground Utilities. The Contractor is responsible for coordinating their work with each utility sufficiently in advance of the work so that the utility can schedule their work crews.

## **NOTICE TO CONTRACTOR – UTILITY COMPANIES**

It is understood that any references in the contract documents to Northeast Utilities, CL&P and/or Yankee Gas are meant to refer to Eversource.

It is understood that any references in the contract documents to AT&T is meant to refer to Frontier Communications.

It is understood that any references in the contract documents to Lighttower is meant to refer to Crown Castle.

It is understood that any references in the contract documents to Cablevision is meant to refer to Altice USA.

## **NOTICE TO CONTRACTOR - UTILITY COORDINATION & RELOCATION**

The proposed temporary and/or permanent locations of the underground utility facilities are shown on the plans. The Contractor is required to coordinate the exact location and timing of all utility relocations with the individual utility owners, and to phase construction operations as required to accommodate all (temporary and/or permanent) utility relocations. In addition to field meetings and correspondence, this coordination may include staking of locations, excavation and temporary grading, tree trimming, providing access to existing and future utility locations, and/or other physical work as required to allow for utility relocation work. The Contractor shall engage in the necessary coordination of utility relocations and associated work at no additional cost to the State.

The Contractor's schedule of operations and construction phasing plans shall show the anticipated utility relocations in the sequence of construction. Project specific utility work schedule information has been provided by the respective utility companies and is included in "Notice to Contractor – Utility Generated Schedule".

The Contractor shall give notice to utility companies a minimum of 30 days prior to required work or services to the utility company. A list of utility companies and representatives is included in Special Provisions Section 1.07.

The Contractor must coordinate with each utility owner and develop their own schedule of utility relocation work and time required to complete this work based upon their own operational plan and equipment.

## **NOTICE TO CONTRACTOR – UTILITY GENERATED SCHEDULE**

The attached project specific utility work schedules were provided to the Connecticut Department of Transportation (Department) by the utility companies regarding their identified work on this project.

The utility scheduling information is provided to assist the Contractor in scheduling its activities. However, the Department does not ensure its accuracy and Section 1.05.06 of the Standard Specifications still is in force.

The utility scheduling information shall be incorporated into the Contractor's pre-award schedule in accordance with the Department's Bidding and Award Manual and Section 1.05.08 of the Contract.

After award, the Contractor shall conduct a utility coordination meeting or meetings to obtain contemporaneous scheduling information from the utilities prior to submitting its baseline schedule to the Department in accordance with Section 1.05.08 of the Contract.

The Contractor shall incorporate the contemporaneous utility scheduling information into its baseline schedule submittal. The baseline schedule shall include Contractor predecessor and successor activities to the utility work in such detail as acceptable to the Engineer.

UTILITY WORK SCHEDULE <small>Rev 3/2015</small>			
CTDOT Project Number:	126-174	Town:	SHELTON
Project Description:	BRIDGE REHABILITATION		
CTDOT Utilities Engineer:	BL COMPANIES		
Phone:	(860) 249-2200	Email:	QDuffy@Blcompanies.com
Utility Company:	FRONTIER COMMUNICATIONS		
Prepared By:	ROGER NALDI	Date Prepared:	7/16/2020
Phone:	203-694-4389	Email:	roger.j.naldi@ftr.com
<b>Scope of Work</b>			
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p> <p>BREAK OUT EXISTING STRUCTURE, SUPPORT CABLES, REBUILD MANHOLE TO ACCOMMODATE ROAD WIDENING . ADJUST TWO FRAME AND COVERS. EXPOSE EXISTING MULTI-TILE STRUTURE UNDER SIDEWALK OVER BRIDGE AND ENCASE IN IN FLOWABLE FILL TO BOTTOM OF PROPOSED SIDEWALK. BREAK OUT EXTING STRUCTURES TO ACCOMODATE PROPOSED DRAINAGE</p>			
<b>Special Considerations and Constraints</b>			
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..</p> <p>NORTH SIDE OF BRIDGE CLOSED TO TRAFFIC. UI FACILITIES ABANDONED ON NORH SIDE OF BRIDGE. SIDEWALK , CURB, PAVEMENT AND EXISTING CONCRETE DECK ROMOVED AS REQUIRED TO ACCESS TELEPHONE FACILITIES</p>			

UTILITY WORK SCHEDULE Rev 3/2015			
CTDOT Project Number:	126-174		
Utility Company:	FRONTIER COMMUNICATIONS		
Prepared By:	ROGER NALDI	Total Working Days:	35
Schedule			
The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.			
Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)
APX. 27+50 to 28+70 MH	BREAK OUT STRUCTURES/SUPPORT CABLES-REBUILD	UI ABANDONED-SIDEWALK,CURB REMOVED-GRADE PROVIDED	12
APX. 23+90 TO 27+50	EXPOSE MULTI-TILE DUCT-ENCASE IN FLOWFILL AS REQUIRED	UI ABANDONED-SIDEWALK,CURB REMOVED-GRADE PROVIDED	5
23+90	ADJUST MH FRAME AND COVER	UI ABANDONED-SIDEWALK,CURB REMOVED-GRADE PROVIDED	1
APX. 28+60 TO 29+00	EXPOSE APX. 40' OF 8 MULTI TILE IN ROAD AND ENCASE	UI ABANDONED-PAVEMENT/CONC. DECK REMOVED-GRADE PROVIDED	2
29+05	ADJUST MH FRAME AND COVER. EXPOSE MANHOLE ROOF, PLACE FLOW FILL.	GRADE PROVIDED	2
29+50	ADJUST MH FRAME AND COVER	GRADE PROVIDED	1
24+10	BREAK OUT STRUCTURES-SHIFT CABLES TO ACCOMMODATE PROP. DRAINAGE	GRADE PROVIDED	7
24+50 to 28+50	BREAK OUT CONC. AT VARIOUS LOCATION-PLACE STEEL PLATES TO ACCOMMODATE SLAB INSTALLATION	PAVEMENT AND EXIST CONC DECK REMOVED	5

rev. 5/20/2013		<b>UTILITY WORK SCHEDULE</b>	
CTDOT Project Number:	126-174	Town:	Derby-Shelton
Project Description: Replace 2 pipelines on bridge, retire a 3rd. Relocate for other conflicts.			
CTDOT Utilities Engineer:	Quinn Duffy		
Phone:	860-249-2200	Email:	Qduffy@blcompanies.com
Utility Company:	Eversource Gas		
Prepared By:	Spencer Biddle	Date Prepared:	7/6/2020
Phone:	303-598-2327	Email:	spencer.biddle@eversource.com
<b>Scope of Work</b>			
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p> <p>In advance of bridge construction Eversource Gas will address and complete any needed offsets of existing pipelines to remain in place to resolve specific and isolated conflicts with proposed drainages, catch basins, or other structures proposed as part of the DOT 126-174 project. Additionally, new pipe segments outside of the DOT project area will be installed to accommodate the pipeline work planned within the project area of DOT 126-174.</p> <p>-</p> <p>During Stage 3 of the project (reference drawing sheet S-10 and supplied relocate plan), Eversource gas will construct a new 12" Steel Low Pressure and 8" Steel Intermediate Pressure pipeline across the bridge. Once in place the existing two 12" Cast Iron Low Pressure pipelines will be removed. A new 8" Steel Intermediate pressure pipeline will be installed. Once installed the existing 8" Steel Intermediate pressure pipeline will be removed.</p>			
<b>Special Considerations and Constraints</b>			
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc.,</p> <p>Radiographic (X-ray) testing will be conducted on our new facilities as part of this project, and such testing requires a sizeable area clear of people.</p> <p>Buy America pipe has a 12-16 week lead time. After the notice to proceed with work is given, there will be 12-16 weeks before the steel pipe will be available for installation.</p> <p>The installation of the new pipelines on the bridge will require full use and access to the working area present on the southeast side of the bridge while traffic is routed on the northwestern lanes.</p>			

### UTILITY WORK SCHEDULE

CTDOT Project Number: 126-174

Utility Company: Eversource Gas

Prepared By:	Spencer Biddle	Total Calendar Days:	88
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## Schedule

The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of calendar days required to complete the utility work activity based on historical information and production rates.

[illegible]

UTILITY WORK SCHEDULE Rev 3/2015			
CTDOT Project Number:	126-174	Town:	SHELTON/DERBY
Project Description:	PEDESTRIAN AND BICYCLE ACCESS IMPROVEMENTS		
CTDOT Utilities Engineer:	QUINN DUFFY		
Phone:	(860)760-1906	Email:	qduffy@blcompanies.com
Utility Company:	CROWN CASTLE FIBER		
Prepared By:	TERENCE J SHEA	Date Prepared:	7/15/2020
Phone:	(203)649-3905	Email:	terence.shea@crowncastle.com
<b>Scope of Work</b>			
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p> <p>Crown Castle Fiber's work will consist of placing new cables in new UI supplied conduit, cutover new cables and remove old cables.</p>			
<b>Special Considerations and Constraints</b>			
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..</p> <p>PLEASE NOTE THAT ANY TIME FRAME GIVEN AS A START TIME OR DURATION OF WORK CAN BE AFFECTED BY MANY FACTORS INCLUDING, BUT NOT LIMITED TO, MAKE READY WORK, OTHER UTILITIES, PERMIT APPLICATIONS, CHANGES IN SCOPE, INCLEMENT WEATHER, HOLIDAYS AND EMERGENCY SITUATIONS.</p>			



UTILITY WORK SCHEDULE Rev 08 02 2016	
CTDOT Project Number:	126-174
Town:	Shelton/Derby
Project Description: Shelton Derby Bridge Replacement No 01659	
CTDOT Utilities Engineer:	
Phone:	Email:
Utility Company: Comcast Cable	
Prepared By: Rafael Ruiz	Date Prepared: 7/15/2020
Phone: 860-883-6025	Email: Rafael_Ruiz@cable.comcast.com
<b>Scope of Work</b>	
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p> <p>Comcast will be excavating to install new conduit under bridge No 01659. Comcast will be excavating for 6 days to install conduit and pull new fiber. Comcast will need two days to splice over the new fiber to remove current bridge attachments. Comcast will need one day to remove the existing Comcast fiber optic cable from the existing bridge.</p>	
<b>Special Considerations and Constraints</b>	
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..</p>	

UTILITY WORK SCHEDULE Rev 3/2015				
CTDOT Project Number: 126-174				
Utility Company: Comcast Cable				
Prepared By: Rafael Ruiz		Total Working Days: 9		
Schedule				
The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.				
Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)	
23+75 - 25+00	Excavate and install new Comcast conduit from existing manhole to station 25+00		1	
25+00 - 26+00	Excavate to install new Comcast conduit from station 25+00 - 26+00		1	
26+00 - 27+00	Excavate to install new Comcast conduit from station 26+00 - 27+00		1	
27+00 - 28+00	Excavate to install new Comcast conduit from station 27+00 - 28+00		1	
28+00 - 29+00	Excavate to install new Comcast conduit from station 28+00 - 29+00		1	
29+00 - 29+50	Excavate to install new Comcast conduit from station 29+00 to the existing Comcast manhole located at		1	
23+75 - 29+50	Splice in first phase of new Comcast fiber at each end of bridge. This work will be completed between 1-5am		1	
23+75 - 29+50	Splice in second phase of new Comcast fiber at each end of bridge. This work will be completed between 1-5am		1	
23+75 - 29+50	Remove old Comcast fiber optic cable from bridge		1	

UTILITY WORK SCHEDULE Rev 08 02 2016	
CTDOT Project Number:	126-174
Town:	Shelton / Derby
Project Description: Pedestrian & Bicyclist Access Improvements (Bridge# 01659)	
CTDOT Utilities Engineer:	Quinn Duffy
Phone: (860) 760 - 1906	Email: qduffy@blcompanies.com
Utility Company: Altice	
Prepared By: Robert Koslowski	Date Prepared: 7/6/2020
Phone: (203) 696 - 4768	Email: robert.koslowski@alticeusa.com
Scope of Work	
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p> <p>Altice USA to install (1) 4" Schedule 40 PVC along Bridge St between existing CATV manholes located at the West &amp; East abutments on the North side of the project. Altice to install (1) fiber and splice in existing CATV manholes. Altice to wreckout existing fiber in conduit on exterior North face of bridge and abandon conduit in place.</p>	
Special Considerations and Constraints	
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..</p> <p>Any time frame given as a Start Time or Duration of Work can be affected by make ready work required prior to start of job, coordination with other utilities, permit applications (State &amp; Municipality, if required), changes in scope of work, inclement weather, lockdown days (e.g. holidays &amp; sporting events) and emergency situations. If placement of new fiber is required, the notification process for customers directly affected by this work cannot begin until the new fiber has been placed, cold spliced and tested; and it can take several weeks or longer for customer approval to transfer traffic to the new fiber. This is a forecast of construction days required and is not intended to be a schedule. Not all work to be done on consecutive days.</p>	

UTILITY WORK SCHEDULE Rev 3/2015				
CTDOT Project Number: 126-174				
Utility Company: Altice / Optimum				
Prepared By: Robert Koslowski		Total Working Days: 25		
Schedule				
The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.				
Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)	
23+50 - 29+50	Install (1) 4" Schedule 40 PVC conduit		6	
23+50	Install (1) 4" Schedule 40 PVC conduit to existing CATV MH in West abutment		3	
29+50	Install (1) 4" Schedule 40 PVC conduit to existing CATV MH in East abutment		3	
23+50 - 29+50	Install (1) 144 ct fiber & splice		5	
23+50 - 29+50	Activate new fiber on overnight		5	
24+00 - 29+50	Wreckout existing fiber in conduit on exterior North face of bridge and abandon conduit in place.		3	

UTILITY WORK SCHEDULE Rev 3/2015			
CTDOT Project Number:	126-174	Town:	Derby
Project Description:	Bridge No. 01659 over Housatonic River		
CTDOT Utilities Engineer:	Quinn Duffy		
Phone:	860-760-1906	Email:	qduffy@blcompanies.com
Utility Company:	UI		
Prepared By:	F Arnold	Date Prepared:	6/30/2020
Phone:	203-499-3922	Email:	fred.arnold@iunet.com
Scope of Work			
<p>The following is a description of all utility work planned to be completed in conjunction with the CTDOT project. The narrative describes all work to be carried out by the utility or its contractor, including temporary and permanent work required by the project as well as any additional utility infrastructure work the utility intends on performing within the project limits during the construction of the project.</p>			
<p>Utility Company: Cut overs and splicing work requires overtime to complete task. Any work regarding new services are not included. UI expects to have unencumbered access to work behind barriers. Service connections are not part of the schedule. Approved service connection submitted to customer services takes 4 to 6 weeks to fulfill.</p>			
Special Considerations and Constraints			
<p>The following describes the limiting factors that must be planned for in the scheduling and performance of the utility work. For example, restrictions on cut-overs, outages, limitations on customer service interruptions (e.g. nights, weekends, holidays), seasonal and environmental shutdown periods, long lead material procurements, etc..</p>			
<p>Procurement process takes 6 months in order obtain a civil contractor, please provide notification of "notice to proceed". Service connections are not part of schedule or cost. Circuit cutovers maybe delay due to summer peaks (July and August).</p>			

UTILITY WORK SCHEDULE Rev 3/2015			
CTDOT Project Number:	126-174		
Utility Company:	United Illuminating		
Prepared By:	Fred Arnold	Total Working Days:	156
Schedule			
The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baseline stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.			
Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)
	Removal of concrete deck	Removal of concrete deck	
	Civil Work (North side of bridge)	Removal of concrete deck (By others)	56
	Chamber prep (North side of bridge)	Civil Work (North side of bridge)	14
	Cable pulls (North side of bridge)	Chamber prep (North side of bridge)	21
	Cutovers (North side of bridge)	Cable pulls (North side of bridge)	50
	Removal of cables (North side of bridge)	Cutovers (North side of bridge)	10
	Demo fo sc (North side of bridge)	Removal of cables (North side of bridge)	5

UTILITY WORK SCHEDULE Rev 3/2015			
CTDOT Project Number:	126-174		
Utility Company:	United Illuminating		
Prepared By:	Fred Arnold	Total Working Days:	156
Schedule			
<p>The following schedule identifies each major activity of utility work in sequential order to be performed by the utility or its contractor. The location of each activity of work is identified by the baselining stationing on the CTDOT plans. All activities identify the predecessor activity which must be completed before a utility work activity may progress. The duration provided is the number of working days required to complete the utility work activity based on historical information and production rates.</p>			
Location (Station to Station)	Description of Utility Work Activity	Predecessor Activity	Duration (working days)
	Removal of concrete deck	Removal of concrete deck	
	Civil Work (South side of bridge)	Removal of concrete deck (By others)	56
	Chamber prep (South side of bridge)	Civil Work (South side of bridge)	14
	Cable pulls (South side of bridge)	Chamber prep (South side of bridge)	21
	Cutovers (South side of bridge)	Cable pulls (South side of bridge)	50
	Removal of cables (South side of bridge)	Cutovers (South side of bridge)	10
	Demo fo sc (South side of bridge)	Removal of cables (South side of bridge)	5

## **NOTICE TO CONTRACTOR - UTILITY SPECIFICATIONS**

The contractor is hereby notified that all utility specifications contained elsewhere herein shall be made a part of this contract, and that the contractor shall be bound to comply with all requirements of such specifications. The requirements and conditions set forth in the subject specifications shall be binding on the contractor just as any other specification would be.

## **ON-THE-JOB TRAINING (OJT) WORKFORCE DEVELOPMENT PILOT**

### **Description**

To provide construction industry related job opportunities to minorities, women and economically disadvantaged individuals; and to increase the likelihood of a diverse and inclusive workforce on Connecticut Department of Transportation (ConnDOT) projects.

All contractors (existing and newcomers) will be automatically placed in the Workforce Development Pilot. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level for new projects. Instead, these requirements will be applicable on an annual basis for each contractor performing work on ConnDOT projects.

The OJT Workforce Development Pilot will allow a contractor to train employees on Federal, State and privately funded projects located in Connecticut. However, contractors should give priority to training employees on ConnDOT Federal-Aid funded projects.

### **Funding**

The Department will establish an OJT fund annually from which contractors may bill the Department directly for eligible trainee hours. The funds for payment of trainee hours on federal-aid projects will be allocated from the ½ of 1% provided for OJT funding, and will be based on hours trained, not to exceed a maximum of \$25,000.00 per year; per contractor.

### **Minorities and Women**

Developing, training and upgrading of minorities, women and economically disadvantaged individuals toward journeyman level status is the primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority, women and economically disadvantaged individuals as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training whether a member of a minority group or not.

### **Assigning Training Goals**

The Department, through the OJT Program Coordinator, will assign training goals for a calendar year based on the contractor's past two year's activities and the contractor's anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time, the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from one (1) to six (6) per

contractor per calendar year. Each January, a summary of the trainees required and the OJT Workforce Development Pilot package will be sent to participating contractors. The number of trainees assigned to each contractor in the summary will increase proportionately not to exceed 6, as shown in the following table. This package will also be provided to contractors as they become newly eligible for the OJT Workforce Development Pilot throughout the remainder of the year. Projects awarded after September 30 will be included in the following year's Program.

The dollar thresholds for training assignments are as follows:

\$4.5 – 8 million=	1 trainee
\$ 9 – 15 million=	2 trainees
\$16 – 23 million=	3 trainees
\$24 – 30 million=	4 trainees
\$31 – 40 million=	5 trainees
\$41 – and above=	6 trainees

### **Training Classifications**

Preference shall be given to providing training in the following skilled work classifications. However, the classifications established are not all-inclusive:

Equipment Operators	Electricians
Laborers	Painters
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

The Department has on file common training classifications and their respective training requirements; that may be used by the contractors. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and the number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

Where feasible, 25% percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

## **Records and Reports**

The Contractor shall maintain enrollment in the program and submit all required reports documenting company compliance under these contract requirements. These documents and any other information shall be submitted to the OJT Program Coordinator as requested.

Upon the trainee's completion and graduation from the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

## **Trainee Interviews**

In order to determine the continued effectiveness of the OJT Program in Connecticut, the department will periodically conduct personal interviews with current trainees and may survey recent graduates of the program. This enables the OJT Program Coordinator to modify and improve the program as necessary. Trainee interviews are generally conducted at the job site to ensure that the trainees' work and training is consistent with the approved training program.

## **Trainee Wages**

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

*In no case, will the trainee be paid less than the prevailing rate for general laborer as shown in the contract wage decision (must be approved by the Department of Labor).*

## **Achieving or Failing to Meet Training Goals**

The Contractor will be credited for each trainee currently enrolled or who becomes enrolled in the approved training program and providing they receive the required training under the specific training program. Trainees will be allowed to be transferred between projects if required by the Contractor's schedule and workload. The OJT Program Coordinator must be notified of transfers within five (5) days of the transfer or reassignments by e-mail ([Phylisha.Coles@ct.gov](mailto:Phylisha.Coles@ct.gov)).

Where a contractor does not or cannot achieve its annual training goal with female or minority trainees, they must produce adequate Good Faith Efforts documentation. Good Faith Efforts are those designed to achieve equal opportunity through positive, aggressive, and continuous result-oriented measures. 23 CFR § 230.409(g) (4). Contractors should request minorities and females from unions when minorities and females are under-represented in the contractor's workforce.

Whenever a contractor requests ConnDOT approval of someone other than a minority or female, the contractor must submit documented evidence of its Good Faith Efforts to fill that position with a minority or female. When a non-minority male is accepted, a contractor must continue to attempt to meet its remaining annual training goals with females and minorities.

Where a contractor has neither attained its goal nor submitted adequate Good Faith Efforts documentation, ConnDOT will issue a letter of non-compliance. Within thirty (30) days of receiving the letter of non-compliance, the contractor must submit a written Corrective Action Plan (CAP) outlining the steps that it will take to remedy the non-compliance. The CAP must be approved by ConnDOT. Failure to comply with the CAP may result in your firm being found non-responsive for future projects.

### **Measurement and Payment**

Optional reimbursement will be made to the contractor for providing the required training under this special provision on ConnDOT Federal-Aid funded projects only.

Contractor will be reimbursed at \$0.80 for each hour of training given to an employee in accordance with an approved training or apprenticeship program. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement.

Reimbursement for training is made annually or upon the trainees completion and not on a monthly basis. No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor.

Program reimbursements will be made directly to the prime contractor on an annual basis. To request reimbursement, prime contractors must complete the Voucher for OJT Workforce Development Pilot Hourly Reimbursement for each trainee in the OJT Program. This form is included in the OJT Workforce Development Pilot package and is available on the Department's web site at:

[www.ct.gov/dot](http://www.ct.gov/dot)

The completed form must be submitted to the Office of Contract Compliance for approval. The form is due on the 15<sup>th</sup> day of January for each trainee currently enrolled and for hours worked on ConnDOT Federal-Aid funded projects only.

## **D.B.E. SUBCONTRACTORS AND MATERIAL SUPPLIERS OR MANUFACTURERS**

**January 2013**

### **I. ABBREVIATIONS AND DEFINITIONS AS USED IN THIS SPECIAL PROVISION**

A. *CTDOT* means the Connecticut Department of Transportation.

B. *USDOT* means the U.S. Department of Transportation, including the Office of the Secretary, the Federal Highway Administration (“FHWA”), the Federal Transit Administration (“FTA”), and the Federal Aviation Administration (“FAA”).

C. *Broker* means a party acting as an agent for others in negotiating Contracts, Agreements, purchases, sales, etc., in return for a fee or commission.

D. *Contract, Agreement or Subcontract* means a legally binding relationship obligating a seller to furnish supplies or services (including but not limited to, construction and professional services) and the buyer to pay for them. For the purposes of this provision, a lease for equipment or products is also considered to be a Contract.

E. *Contractor* means a consultant, second party or any other entity under Contract to do business with CTDOT or, as the context may require, with another Contractor.

F. *Disadvantaged Business Enterprise (“DBE”)* means a for profit small business concern:

1. That is at least 51 percent owned by one or more individuals who are both socially and economically disadvantaged or, in the case of a corporation, in which 51 percent of the stock is owned by one or more such individuals; and
2. Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it; and
3. Certified by CTDOT under Title 49 of the Code of Federal Regulations, Part 26, (Title 49 CFR Part 23 of the Code of Federal Regulations for Participation of Disadvantaged Business Enterprise in Airport Concessions)

G. *USDOT-assisted Contract* means any Contract between CTDOT and a Contractor (at any tier) funded in whole or in part with USDOT financial assistance.

H. *Good Faith Efforts (“GFE”)* means all necessary and reasonable steps to achieve a DBE goal or other requirement which by their scope, intensity, and appropriateness to the objective, can reasonably be expected to fulfill the program requirement.

I. *Small Business Concern* means, with respect to firms seeking to participate as DBEs in USDOT-assisted Contracts, a small business concern as defined pursuant to Section 3 of the Small Business Act and Small Business Administration (“SBA”) regulations implementing it (13 CFR Part 121) that also does not exceed the cap on average annual gross receipts in 49 CFR Part 26, Section 26.65(b).

J. *Socially and Economically Disadvantaged Individual* means any individual who is a citizen (or lawfully admitted permanent resident) of the United States and who is:

1. Any individual who CTDOT finds, on a case-by-case basis, to be a socially and economically disadvantaged individual.
2. Any individuals in the following groups, members of which are rebuttably presumed to be socially and economically disadvantaged:
  - “Black Americans”, which includes persons having origins in any of the Black racial groups of Africa;
  - “Hispanic Americans”, which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
  - “Native Americans”, which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians.
  - “Asian-Pacific Americans”, which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, or Federated States of Micronesia;
  - “Subcontinent Asian Americans”, which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
  - Women;
  - Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

K. *Commercially Useful Function (“CUF”)* means the DBE is responsible for the execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved with its own forces and equipment. The DBE must be responsible for procuring, determining quantity, negotiating price, determining quality and paying for all materials (where applicable) associated with their work. The DBE must also perform at least 30% of the total cost of its contract with its own workforce.

## **II. ADMINISTRATIVE REQUIREMENTS**

### **A. General Requirements**

A DBE goal percentage equaling **Twelve Percent (12%)** of the Contract value has been established for this Contract. This DBE goal percentage will be applied to the final Contract value to ultimately determine the required DBE goal. If additional work is required, DBE firms should be provided the appropriate opportunities to achieve the required DBE goal.

In order to receive credit toward the Contract DBE goal, the firms utilized as DBE subcontractors or suppliers must be certified as DBEs in the type of work to be counted for credit by CTDOT’s Office of Contract Compliance prior to the date of the execution of the subcontract. Neither CTDOT nor the State of Connecticut’s Unified Certification Program (UCP) makes any representation as to any DBE’s technical or financial ability to perform the work. Prime contractors are solely responsible for performing due diligence in hiring DBE subcontractors.

All DBEs shall perform a CUF for the work that is assigned to them. The Contractor shall monitor and ensure that the DBE is in compliance with this requirement. The Connecticut DBE UPC Directory of certified firms can

be found on the CTDOT website <http://www.ct.gov/dot>. The directory lists certified DBE firms with a description of services that they are certified to perform. Only work identified in this listing may be counted towards the project's DBE goal. A DBE firm may request to have services added at any time by contacting CTDOT's Office of Contract Compliance. No credit shall be counted for any DBE firm found not to be performing a CUF.

Once a Contract is awarded, all DBEs that were listed on the pre-award DBE commitment document must be utilized. The Contractor is obligated to provide the value and items of the work originally established in the pre-award documentation to the DBE firms listed in the pre-award documentation. Any modifications to the pre-award commitment must follow the procedure established in Section II-C.

The Contractor shall designate a liaison officer who will administer the Contractor's DBE program. Upon execution of this Contract, the name of the liaison officer shall be furnished in writing to CTDOT's unit administering the Contract, CTDOT's Office of Contract Compliance and CTDOT's Office of Construction ("OOC"). Contact information for the designated liaison officer shall be furnished no later than the scheduled date for the pre-construction meeting.

**The Contractor shall submit a bi-monthly report to the appropriate CTDOT unit administering the Contract. This report shall indicate what work has been performed to date, with the dollars paid and percentage of DBE goal completed.**

**Verified payments made to DBEs shall be included in this bi-monthly report. A sample form is included on the CTDOT website.**

In addition, the report shall include:

1. A projected time frame of when the remaining work is to be completed for each DBE.
2. A statement by the Contractor either confirming that the approved DBEs are on schedule to meet the Contract goal, or that the Contractor is actively pursuing a GFE.
3. If retainage is specified in the Contract specifications, then a statement of certification that the subcontractors' retainage is being released in accordance with 1.08.01 (Revised or supplemented).

Failure by the Contractor to provide the required reports may result in CTDOT withholding an amount equal to one percent (1%) of the monthly estimate until the required documentation is received.

The Contractor shall receive DBE credit when a DBE, or any combination of DBEs, perform work under the Contract in accordance with this specification.

Only work actually performed by and/or services provided by DBEs which are certified for such work and/or services, as verified by CTDOT, can be counted toward the DBE goal. Supplies and equipment a DBE purchases or leases from the Contractor or its affiliate cannot be counted toward the goal.

Monitoring of the CUF will occur by CTDOT throughout the life of the project. If it is unclear that the DBE is performing the work specified in its subcontract with the prime Contractor, further review may be required. If it is determined that the DBE is not performing a CUF, then the work performed by that DBE will not be counted towards the DBE goal percentage.

## **B. Subcontract Requirements**

The Contractor shall submit to CTDOT's OOC all requests for subcontractor approvals on the standard CLA-12 forms provided by CTDOT. The dollar amount and items of work identified on the CLA-12 form must, at minimum, equal the dollar value submitted in the pre-award commitment. CLA-12 forms can be found at <http://www.ct.gov/dot/construction> under the "Subcontractor Approval" section. All DBE subcontractors must be identified on the CLA-12 form, regardless of whether they are being utilized to meet a Contract goal percentage. A copy of the legal Contract between the Contractor and the DBE subcontractor/supplier, a copy of the Title VI Contractor Assurances and a copy of the Required Contract Provision for Federal Aid Construction Contracts (Form FHWA-1273) (Federal Highway Administration projects only) must be submitted along with a request for subcontractor approval. These attachments cannot be substituted by reference.

If retainage is specified in the Contract specifications, then the subcontract agreement must contain a prompt payment mechanism that acts in accordance with Article 1.08.01 (Revised or supplemented).

If the Contract specifications do not contain a retainage clause, the Contractor shall not include a retainage clause in any subcontract agreement, and in this case, if a Contractor does include a retainage clause, it shall be deemed unenforceable.

In addition, the following documents are to be included with the CLA-12, if applicable:

- An explanation indicating who will purchase material.
- A statement explaining any method or arrangement for utilization of the Contractor's equipment.

The subcontract must show items of work to be performed, unit prices and, if a partial item, the work involved by all parties. If the subcontract items of work or unit prices are modified, the procedure established in Section II-C must be followed.

Should a DBE subcontractor further sublet items of work assigned to it, only lower tier subcontractors who are certified as a DBE firm will be counted toward the DBE goal. If the lower tier subcontractor is a non-DBE firm, the value of the work performed by that firm will not be counted as credit toward the DBE goal.

The use of joint checks between a DBE firm and the Contractor is acceptable, provided that written approval is received from the OOC prior to the issuance of any joint check. Should it become necessary to issue a joint check between the DBE firm and the Contractor to purchase materials, the DBE firm must be responsible for negotiating the cost, determining the quality and quantity, ordering the material and installing (where applicable), and administering the payment to the supplier. The Contractor should not make payment directly to suppliers.

Each subcontract the Contractor signs with a subcontractor must contain the following assurance:

"The subcontractor/supplier/manufacture shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor/subcontractor/supplier/manufacture to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate."

## **C. Modification to Pre-Award Commitment**

Contractors may not terminate for convenience any DBE subcontractor or supplier that was listed on the pre-award DBE commitment without prior written approval of the OOC. This includes, but is not limited to, instances

in which a Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Prior to approval, the Contractor must demonstrate to the satisfaction of the OOC, that it has good cause, as found in 49CFR Part 26.53 (f)(3), for termination of the DBE firm.

Before transmitting its request for approval to terminate pre-award DBE firms to the OOC, the Contractor must give written notice to the DBE subcontractor and include a copy to the OOC of its notice to terminate and/or substitute, and the reason for the notice.

The Contractor must provide five (5) days for the affected DBE firm to respond. This affords the DBE firm the opportunity to advise the OOC and the Contractor of any reasons why it objects to the termination of its subcontract and why the OOC should not approve the Contractor's action.

Once the Contract is awarded, should there be any amendments or modifications of the approved pre-award DBE submission other than termination of a DBE firm, the Contractor shall follow the procedure below that best meets the criteria associated with the reason for modification:

1. If the change is due to a scope of work revision or non-routine quantity revision by CTDOT, the Contractor must notify CTDOT's OOC in writing or via electronic mail that their DBE participation on the project may be impacted as soon as they are aware of the change. In this case, a release of work from the DBE firm may not be required; however the Contractor must concurrently notify the DBE firm in writing, and copy the OOC for inclusion in the project DBE file. This does not relieve the Contractor of its obligation to meet the Contract specified DBE goal, or of any other responsibility found in this specification.
2. If the change is due to a factor other than a CTDOT directive, a request for approval in writing or via electronic mail of the modification from the OOC must be submitted, along with an explanation of the change(s), prior to the commencement of work. The Contractor must also obtain a letter of release from the originally named DBE indicating their concurrence with the change, and the reason(s) for their inability to perform the work. In the event a release cannot be obtained, the Contractor must document all efforts made to obtain it.
3. In the event a DBE firm that was listed in the pre-award documents is **unable** or **unwilling** to perform the work assigned, the Contractor shall:
  - Notify the OOC Division Chief immediately and make efforts to obtain a release of work from the firm.
  - Submit documentation that will provide a basis for the change to the OOC for review and approval prior to the implementation of the change.
  - Use the DBE Directory to identify and contact firms certified to perform the type of work that was assigned to the unable or unwilling DBE firm. The Contractor should also contact CTDOT's Office of Contract Compliance for assistance in locating additional DBE firms to the extent needed to meet the contract goal.

Should a DBE subcontractor be terminated or fail to complete work on the Contract for any reason, the Contractor must make a GFE to find another DBE subcontractor to substitute for the original DBE. The DBE replacement shall be given every opportunity to perform at least the same amount of work under the Contract as the original DBE subcontractor.

If the Contractor is unable to find a DBE replacement:

- The Contractor should identify other contracting opportunities and solicit DBE firms in an effort to meet the Contract DBE goal requirement, if necessary, and provide documentation to support a GFE. (Refer to GFE in Section III.)
- The Contractor must demonstrate that the originally named DBE, who is unable or unwilling to perform the work assigned, is in default of its subcontract, or identify other issues that affected the DBE firm's ability to perform the assigned work. **The Contractor's ability to negotiate a more advantageous agreement with another subcontractor is not a valid basis for change.**

### **III. GOOD FAITH EFFORTS**

The DBE goal is **NOT** reduced or waived for projects where the Contractor receives a Pre-Award GFE determination from the Office of Contract Compliance prior to the award of the Contract. It remains the responsibility of the Contractor to make a continuing GFE to achieve the specified Contract DBE goal. The Contractor shall pursue every available opportunity to obtain additional DBE firms and document all efforts made in such attempts.

At the completion of all Contract work, the Contractor shall submit a final report to CTDOT's unit administering the Contract indicating the work done by and the dollars paid to DBEs. Only verified payments made to DBEs performing a CUF will be counted towards the Contract goal.

Goal attainment is based on the total Contract value, which includes all construction orders created during the Contract. If the Contractor does not achieve the specified Contract goal for DBE participation or has not provided the value of work to the DBE firms originally committed to in the pre-award submission, the Contractor shall submit documentation to CTDOT's unit administering the Contract detailing the GFE made during the performance of the Contract to satisfy the goal.

A GFE should consist of the following, where applicable (CTDOT reserves the right to request additional information):

1. A detailed statement of the efforts made to replace an unable or unwilling DBE firm, and a description of any additional subcontracting opportunities that were identified and offered to DBE firms in order to increase the likelihood of achieving the stated goal.
2. A detailed statement, including documentation of the efforts made to contact and solicit bids from certified DBEs, including the names, addresses, and telephone numbers of each DBE firm contacted; the date of contact and a description of the information provided to each DBE regarding the scope of services and anticipated time schedule of work items proposed to be subcontracted and the response from firms contacted.
3. Provide a detailed explanation for each DBE that submitted a subcontract proposal which the Contractor considered to be unacceptable stating the reason(s) for this conclusion.
4. Provide documentation, if any, to support contacts made with CTDOT requesting assistance in satisfying the specified Contract goal.

5. Provide documentation of all other efforts undertaken by the Contractor to meet the defined goal. Additional documentation of efforts made to obtain DBE firms may include but will not be limited to:
  - Negotiations held in good faith with interested DBE firms, not rejecting them without sound reasons.
  - Written notice provided to a reasonable number of specific DBE firms in sufficient time to allow effective participation.
  - Those portions of work that could be performed by readily available DBE firms.

**In instances where the Contractor can adequately document or substantiate its GFE and compliance with other DBE Program requirements, the Contractor will have satisfied the DBE requirement and no administrative remedies will be imposed.**

#### **IV. PROJECT COMPLETION**

At the completion of all Contract work, the Contractor shall:

1. Submit a final report to CTDOT's unit administering the Contract indicating the work done by, and the dollars paid to DBEs.
2. Submit verified payments made to all DBE subcontractors for the work that was completed.
3. Submit documentation detailing any changes to the DBE pre-award subcontractors that have not met the original DBE pre-award commitment, including copies of the Department's approvals of those changes.
4. Retain all records for a period of three (3) years following acceptance by CTDOT of the Contract and those records shall be available at reasonable times and places for inspection by authorized representatives of CTDOT and Federal agencies. If any litigation, claim, or audit is started before the expiration of the three (3) year period, the records shall be retained until all litigation, claims, or audit findings involving the records are resolved.

If the Contractor does not achieve the specified Contract goal for DBE participation in addition to meeting the dollar value committed to the DBE subcontractors identified in the pre-award commitment, the Contractor shall submit documentation to CTDOT's unit administering the Contract detailing the GFE made during the performance of the Contract to satisfy the goal.

#### **V. SHORTFALLS**

##### **A. Failure to meet DBE goals**

**As specified in (II-A) above, attainment of the Contract DBE goal is based on the final Contract value.** The Contractor is expected to achieve the amount of DBE participation originally committed to at the time of award; however, additional efforts must be made to provide opportunities to DBE firms in the event a Contract's original value is increased during the life of the Contract.

The Contractor is expected to utilize the DBE subcontractors originally committed in the DBE pre-award documentation for the work and dollar value that was originally assigned.

If a DBE is terminated or is unable or unwilling to complete its work on a Contract, the Contractor shall make a GFE to replace that DBE with another certified DBE to meet the Contract goal.

The Contractor shall immediately notify the OOC of the DBE's inability or unwillingness to perform, and provide reasonable documentation and make efforts to obtain a release of work from the firm.

If the Contractor is unable to find a DBE replacement, then the Contractor should identify other contracting opportunities and solicit DBE firms in an effort to meet the Contract DBE goal requirement, if necessary, and provide documentation to support a GFE.

When a DBE is unable or unwilling to perform, or is terminated for just cause, the Contractor shall make a GFE to find other DBE opportunities to increase DBE participation to the extent necessary to at least satisfy the Contract goal.

For any DBE pre-award subcontractor that has been released appropriately from the project, no remedy will be assessed, provided that the Contractor has met the criteria described in Section II-C.

#### **B. Administrative Remedies for Non-Compliance:**

In cases where the Contractor has failed to meet the Contract specified DBE goal or the DBE pre-award commitment, and where no GFE has been demonstrated, then one or more of the following administrative remedies will be applied:

1. A reduction in Contract payments to the Contractor as determined by CTDOT, not to exceed the shortfall amount of the **DBE goal**. The maximum shortfall will be calculated by multiplying the Contract DBE goal (adjusted by any applicable GFE) by the final Contract value, and subtracting any verified final payments made to DBE firms by the Contractor.
2. A reduction in Contract payments to the Contractor determined by CTDOT, not to exceed the shortfall amount of the **pre-award commitment**. The maximum shortfall will be calculated by subtracting any verified final payments made by the Contractor to each DBE subcontractor from the amount originally committed to that subcontractor in the pre-award commitment.
3. A reduction in Contract payments to the Contractor determined by CTDOT for any pre-award DBE subcontractor who has not obtained the dollar value of work identified in the DBE pre-award commitment and has not followed the requirements of Section II-C or for any DBE firm submitted for DBE credit that has not performed a CUF.
4. The Contractor being required to submit a written DBE Program Corrective Action Plan to CTDOT for review and approval, which is aimed at ensuring compliance on future projects.
5. The Contractor being required to attend a Non-Responsibility Meeting on the next contract where it is the apparent low bidder.
6. The Contractor being suspended from bidding on contracts for a period not to exceed six (6) months.

## **VI. CLASSIFICATIONS OTHER THAN SUBCONTRACTORS**

### **A. Material Manufacturers**

Credit for DBE manufacturers is 100% of the value of the manufactured product. A manufacturer is a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

If the Contractor elects to utilize a DBE manufacturer to satisfy a portion of, or the entire specified DBE goal, the Contractor must provide the OOC with:

- Subcontractor Approval Form (CLA-12) indicating the firm designation,
- An executed "Affidavit for the Utilization of Material Suppliers or Manufacturers" (sample attached), and
- Substantiation of payments made to the supplier or manufacturer for materials used on the project.

### **B. Material Suppliers (Dealers)**

Credit for DBE dealers/suppliers is limited to 60% of the value of the material to be supplied, provided such material is obtained from an approved DBE dealer/supplier.

In order for a firm to be considered a regular dealer, the firm must own, operate, or maintain a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. At least one of the following criteria must apply:

- To be a regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
- A person may be a regular dealer in such bulk items as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating or maintaining a place of business if the person both owns and operates distribution equipment for the products. Any supplementing of the regular dealers' own distribution equipment shall be by long term lease agreement, and not on an ad hoc or contract to contract basis.
- Packagers, brokers, manufacturers' representatives, or other persons who arrange or expedite transactions are not regular dealers within the meaning of this paragraph.

If the Contractor elects to utilize a DBE supplier to satisfy a portion or the entire specified DBE goal, the Contractor must provide the OOC with:

- Subcontractor Approval Form (CLA-12) indicating the firm designation,
- An executed "Affidavit for the Utilization of Material Suppliers or Manufacturers" (sample attached), and
- Substantiation of payments made to the supplier or manufacturer for materials used on the project.

### **C. Brokering**

- Brokering of work for DBE firms who have been listed by the Department as certified brokers is allowed. Credit for those firms shall be applied following the procedures in Section VI-D.
- Brokering of work by DBEs who have been approved to perform subcontract work with their own workforce and equipment is not allowed, and is a Contract violation.

- Firms involved in the brokering of work, whether they are DBEs and/or majority firms who engage in willful falsification, distortion or misrepresentation with respect to any facts related to the project shall be referred to the U.S. DOT, Office of the Inspector General for prosecution under Title 18, U.S. Code, Part I, Chapter 47, Section 1020.

#### **D. Non-Manufacturing or Non-Supplier DBE Credit**

Contractors may count towards their DBE goals the following expenditures with DBEs that are not manufacturers or suppliers:

- Reasonable fees or commissions charged for providing a bona fide service such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment materials or supplies necessary for the performance of the Contract, provided that the fee or commission is determined by the OOC to be reasonable and consistent with fees customarily allowed for similar services.
- The fees charged only for delivery of materials and supplies required on a job site when the hauler, trucker, or delivery service is a DBE, and not the manufacturer, or regular dealer of the materials and supplies, and provided that the fees are determined by the OOC to be reasonable and not excessive as compared with fees customarily allowed for similar services.
- The fees or commissions charged for providing bonds or insurance specifically required for the performance of the Contract, provided that the fees or commissions are determined by CTDOT to be reasonable and not excessive as compared with fees customarily allowed for similar services.

#### **E. Trucking**

While technically still considered a subcontractor, the rules for counting credit for DBE trucking firms are as follows:

- The DBE must own and operate at least one fully licensed, insured, and operational truck used on the Contract.
- The DBE receives credit for the total value of the transportation services it provides on the Contract using trucks it owns, insures and operates using drivers it employs.
- The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the Contract.
- The DBE may lease trucks from a non-DBE firm; however the DBE may only receive credit for any fees or commissions received for arranging transportation services provided by the non-DBE firms. Additionally, the DBE firm must demonstrate that they are in full control of the trucking operation for which they are seeking credit.

#### **VII. Suspected DBE Fraud**

In appropriate cases, CTDOT will bring to the attention of the USDOT any appearance of false, fraudulent, or dishonest conduct in connection with the DBE program, so that USDOT can take the steps, e.g. referral to the

Department of Justice for criminal prosecution, referral to USDOT Inspector General, action under suspension and debarment or Program Fraud and Civil Penalties rules provided in 49 CFR Part 31.

**CONNECTICUT DEPARTMENT OF TRANSPORTATION  
(OFFICE OF CONSTRUCTION)  
BUREAU OF ENGINEERING AND CONSTRUCTION**

This affidavit must be completed by the State Contractor's DBE notarized and attached to the contractor's request to utilize a DBE supplier or manufacturer as a credit towards its DBE contract requirements; failure to do so will result in not receiving credit towards the contract DBE requirement.

State Contract No.

Federal Aid Project No.

Description of Project

I, \_\_\_\_\_, acting in behalf of \_\_\_\_\_,  
(Name of person signing Affidavit) (DBE person, firm, association or corporation)

of which I am the \_\_\_\_\_ certify and affirm that \_\_\_\_\_  
(Title of Person) (DBE person, firm, association or corporation)

is a certified Connecticut Department of Transportation DBE. I further certify and affirm that I have read and understand 49 CFR, Sec. 26.55(e)(2), as the same may be revised.

I further certify and affirm that \_\_\_\_\_ will assume the actual and  
(DBE person, firm, association or Corporation)  
for the provision of the materials and/or supplies sought by \_\_\_\_\_.

If a manufacturer, I operate or maintain a factory or establishment that produces, on the premises, the materials, supplies, articles or equipment required under the contract an of the general character described by the specifications.

If a supplier, I perform a commercially useful function in the supply process. As a regular dealer, I, at a minimum, own and operate the distribution equipment for bulk items. Any supplementing of my distribution equipment shall be by long-term lease agreement, and not on an ad hoc or contract-by-contract basis.

I understand that false statements made herein are punishable by Law (Sec. 53a-157), CGS, as revised).

(Name of Corporation or Firm)

(Signature & Title of Official making the Affidavit)

Subscribed and sworn to before me, this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_.

Notary Public (Commissioner of the Superior Court)

My Commission Expires \_\_\_\_\_

**CERTIFICATE OF CORPORATION**

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_  
(Official) (President)

of the Corporation named in the foregoing instrument; that I have been duly authorized to affix the seal of the Corporation to such papers as require the seal; that \_\_\_\_\_, who signed said instrument on behalf of the Corporation, was then \_\_\_\_\_ of said corporation; that said instrument was duly signed for and in behalf of said Corporation by authority of its governing body and is within the scope of its corporation powers.

\_\_\_\_\_  
(Signature of Person Certifying)

\_\_\_\_\_  
(Date)

## **SECTION 1.02 - PROPOSAL REQUIREMENTS AND CONDITIONS**

### **1.02.01—Contract Bidding and Award:**

After the first sentence of the third paragraph, add the Following:

In accordance with the provisions of the Construction Contract Bidding and Award Manual, bidders must be prequalified for **Group 9 – Intermediate Bridges**, to be eligible to bid on this project. Bidders that are not prequalified for this work classification will not be approved to bid on this project.

## **SECTION 1.05 - CONTROL OF THE WORK**

*Replace Article 1.05.02 with the following:*

### **1.05.02—Plans, Working Drawings, Shop Drawings, Product Data, Submittal Preparation and Processing - Review Timeframes, Department's Action:**

**1. Plans:** The plans prepared by the Department show the details necessary to give a comprehensive idea of the construction contemplated under the Contract. The plans will generally show location, character, dimensions, and details necessary to complete the Project. If the plans do not show complete details, they will show the necessary dimensions and details, which when used along with the other Contract documents, will enable the Contractor to prepare Working Drawings, Shop Drawings or Product Data necessary to complete the Project.

Project submittals shall be delivered to the Department using the Department's project management system COMPASS. The Contractor shall acquire and maintain access to COMPASS for the delivery of submittals as listed herein. The delivery processes and document tracking procedures shall be performed in accordance with this specification and the [COMPASS Contractor's User Manual](#).

**2. Working Drawings:** When required by the Contract or when ordered to do so by the Engineer, the Contractor shall prepare and submit the Working Drawings, signed, sealed and dated by a qualified Professional Engineer licensed to practice in the State of Connecticut, for review. The Working Drawings shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Working Drawings, procedures or supporting calculations, but the cost thereof shall be considered as included in the general cost of the work.

The Contractor is only required to deliver paper copies that have been stamped with "No Exceptions Noted" or "Exceptions as Noted." Guidance to the Contractor for the number of properly sized paper copies will be provided by the Department.

All Working Drawing submission documents shall conform to the following requirements:

**A. Drawings:**

- i. Delivered in a single multi-page PDF file.
- ii. Shall be sized ANSI D (34 inches × 22 inches).
- iii. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Department's stamp.
- iv. Text height and width shall be 0.125 inch.
- v. All letter characters shall be uppercase.
- vi. Shall be searchable.
- vii. Shall be black and white.
- viii. Cover Page - shall be digitally signed by the Contractor's Professional Engineer.

- ix. All pages shall include a watermark of the Professional Engineer's stamp in a common area.
- B. Calculations:
  - i. Delivered in a single PDF file
  - ii. Shall be sized ANSI A (8.5 inches × 11 inches).
  - iii. Cover Page shall be digitally signed by the Contractor's Professional Engineer.
- C. Supporting Documentation:
  - i. Delivered as an independent single PDF file
  - ii. Shall be sized ANSI A (8.5 inches × 11 inches).
- a. Working Drawings for Permanent Construction: The Contractor shall supply to the Department a certificate of insurance in accordance with 1.03.07 at the time that the Working Drawings for the Project are submitted.  
 The Contractor's designer, who prepares the working drawings, shall secure and maintain at no direct cost to the State a Professional Liability Insurance Policy for errors and omissions in the minimum amount of \$2,000,000 per error or omission. The Contractor's designer may elect to obtain a policy containing a maximum \$250,000 deductible clause, but if the Contractor's designer should obtain a policy containing such a clause, they shall be liable to the extent of at least the deductible amount. The Contractor's designer shall obtain the appropriate and proper endorsement of its Professional Liability Policy to cover the indemnification clause in this Contract, as the same relates to negligent acts, errors or omissions in the Project work performed by them. The Contractor's designer shall continue this liability insurance coverage for a period of
  - (i) 3 years from the date of acceptance of the work by the Engineer, as evidenced by a State of Connecticut, Department of Transportation form entitled "Certificate of Acceptance of Work," issued to the Contractor; or
  - (ii) 3 years after the termination of the Contract, whichever is earlier, subject to the continued commercial availability of such insurance.
- b. Working Drawings for Temporary Construction: The Contractor shall submit drawings, calculations, procedures and other supporting data to the Department in accordance with this Specification, with the exception of requirements defined under a. Working Drawings for Permanent Construction.

**3. Shop Drawings:** When required by the Contract, or when ordered to do so by the Engineer, the Contractor shall prepare and deliver Shop Drawings to the Department for review.

Shop Drawings shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Shop Drawings but the cost thereof shall be considered as included in the general cost of the work.

The Contractor is only required to deliver paper copies that have been stamped with “No Exceptions Noted” or “Exceptions as Noted.” Guidance to the Contractor for the number of properly sized paper copies will be provided by the Department.

Shop Drawing submission documents shall conform to the following requirements:

- A. Delivered in a single multi-page PDF file.
- B. Shall be sized ANSI D (34 inches × 22 inches).
- C. Contain a border, title block and a rectangular box, 2.25 inches wide × 1.75 inches high, in the lower right hand corner for the Department’s stamp.
- D. Text height and width shall be 0.125 inch.
- E. All letter characters shall be uppercase.
- F. Shall be searchable.
- G. Shall be black and white.

**4. Product Data:** When required by the Contract, or when ordered to do so by the Engineer, the Contractor shall prepare and deliver Product Data to the Department for review.

Product Data shall be submitted sufficiently in advance of the work detailed, to allow for their review in accordance with the requirements specified in 1.05.02-5 (including any necessary revisions, resubmittal, and final review). There will be no direct payment for furnishing any Product Data but the cost thereof shall be considered as included in the general cost of the work.

The Contractor shall submit the Product Data in a single submittal for each element of construction.

The Contractor shall mark each copy of the Product Data submittal to show applicable choices and options. Where Product Data includes information on several products that are not required, copies shall be marked to indicate the applicable information. Product Data shall include the following information and confirmation of conformance with the Contract to the extent applicable: manufacturer’s printed recommendations, compliance with recognized trade association standards, compliance with recognized testing agency standards, application of testing agency labels and seals, notation of coordination requirements, Contract item number, and any other information required by the individual Contract provisions.

The Contractor is only required to deliver paper copies that have been stamped with “No Exceptions Noted” or “Exceptions as Noted.” Guidance to the Contractor for the number of properly sized paper copies will be provided by the Department.

Product Data submission documents shall conform to the following requirements:

- A. Delivered in a single PDF file
- B. Shall be sized ANSI A (8.5 inches × 11 inches).
- C. Marked to indicate applicable choices and options.
- D. Where non-applicable information and products are included, notations shall be made to clearly delineate applicable from non-applicable information.

**5. Submittal Preparation and Processing – Review Timeframes:** If the Department deems a submittal incomplete or unacceptable because not all the required documents were attached, documents are incomplete, or are in the incorrect format, the Department will send the submittal back to the Contractor before reviewing. When a submittal is sent back as incomplete, the associated documents have not been reviewed and the review process and any associated timeframe requirements have not begun.

The Contractor shall allow 30 calendar days for submittal review by the Department, from the date receipt is acknowledged by the Department. For any submittals stamped with “Revise and Resubmit” or “Rejected,” the Department is allowed an additional 20 calendar days for review of any resubmissions.

An extension of Contract time will not be authorized due to the Contractor’s failure to transmit submittals sufficiently in advance of the work to permit processing.

The furnishing of Shop Drawings, Working Drawings or Product Data, or any comments or suggestions by the Designer or Engineer concerning Shop Drawings, Working Drawings or Product Data, shall not relieve the Contractor of any of its responsibility for claims by the State or by third parties, as per 1.07.10.

The furnishing of the Shop Drawings, Working Drawings and Product Data shall not serve to relieve the Contractor of any part of its responsibility for the safety or the successful completion of the Project construction.

**6. Department’s Action:** The Department will review each submittal, mark each with a self-explanatory action stamp, and return the stamped submittal promptly to the Contractor. The Contractor shall not proceed with the part of the Project covered by the submittal until the submittal is marked “No Exceptions Noted” or “Exceptions as Noted” by the Department. The Contractor shall retain sole responsibility for compliance with all Contract requirements. The stamp will be marked as follows to indicate the action taken:

- a. If submittals are marked “No Exceptions Noted,” the Designer or Engineer has not observed any statement or feature that appears to deviate from the Contract requirements. This disposition is contingent on being able to execute any manufacturer’s written warranty in compliance with the Contract provisions.
- b. If submittals are marked “Exceptions as Noted,” the considerations or changes noted by the Department’s Action are necessary for the submittal to comply with Contract requirements. The Contractor shall review the required changes and inform the Department if they feel the changes violate a provision of the Contract or would lessen the warranty coverage.
- c. If submittals are marked “Revise and Resubmit,” the Contractor shall revise the submittals to address the deficiencies or provide additional information as noted by the Department. The Contractor shall allow an additional review period as specified in 1.05.02-5.

- d. If submittals are marked “Rejected,” the Contractor shall prepare and submit a new submittal in accordance with the Department’s notations. The resubmissions require an additional review and determination by the Department. The Contractor shall allow an additional review period as specified in 1.05.02-5.

## **SECTION 1.07 - LEGAL RELATIONS AND RESPONSIBILITIES**

**Article 1.07.13** - Contractor's Responsibility for Adjacent Property, Facilities and Services is supplemented as follows:

The following company and representative shall be contacted by the Contractor to coordinate the protection of their utilities on this project 30 days prior to the start of any work on this project involving their utilities:

Mr. Kevin Robinson  
Construction Manager  
Cablevision dba Altice USA  
28 Cross Street  
Norwalk, CT 06851  
Phone: 914-326-1071

Mr. Robert Koslowski  
Project Engineer  
Cablevision dba Altice USA  
Phone: 203-696-4768

Ms. Lynne DeLucia  
Manager – Engineering & Construction  
The Southern New England Telephone  
Company dba Frontier  
Communications of Connecticut  
1441 North Colony Road  
Meriden, CT 06450-4101  
Phone: 203-238-5000

Aboveground Facilities:  
Mr. Roger Naldi  
Project Engineer  
The Southern New England Telephone  
Company dba Frontier  
Communications of Connecticut  
Phone: 203-238-5656

Mr. Eric Clark  
Manager Fiber Construction  
Lighttower Fiber Networks  
dba Crown Castle Fiber  
1781 Highland Avenue, Suite 102  
Cheshire, CT 06410  
Phone: 203-649-3904

Mr. Terence Shea  
Project Engineer  
Lighttower Fiber Networks  
dba Crown Castle Fiber  
Phone: 203-649-3905

Mr. Eric C. Johnson  
Engr Iv Spec-Ntwk Eng & Ops  
MCI Communications Services, Inc.  
dba Verizon Enterprise Solutions  
85 High Street  
Pawtucket, RI 02860  
Phone: 401-727-9558

Mr. Jim Bitzas  
Regional Construction Director  
Comcast of Connecticut, Inc.  
1110 East Mountain Road  
Westfield, MA 10185  
Phone: 413-642-8582

Mr. Rafael Ruiz  
Project Engineer  
Comcast of Connecticut, Inc.  
Phone: 860-883-6025

Mr. James Shea  
Lead Engineer Gas Project Engineering  
Yankee Gas Services  
Dba Eversource Energy-Gas Distribution  
107 Selden Street, Mail Stop NUE2  
Berlin, CT 06037  
Phone: 860-665-3332

Mr. Spencer Biddle  
Project Engineer  
Yankee Gas Services Company  
dba Eversource Energy-Gas Distribution  
Phone: 860-665-2112

Mr. Fred Arnold  
Project Management Engineer  
The United Illuminating Company  
180 Marsh Hill Road  
Orange, CT 06477-3692  
Phone: 203-499-3922

Mr. Claudio Anania  
Project Engineer  
The United Illuminating Company  
Phone: 203-926-4878

Mr. Carlos Vizcarrondo  
Relocations Coordinator  
Aquarion Water Company of Connecticut  
600 Lindley Street  
Bridgeport, CT 06606  
Phone: 203-337-5950

## **SECTION 1.08 - PROSECUTION AND PROGRESS**

### **Article 1.08.04 - Limitation of Operations - Add the following:**

In order to provide for traffic operations as outlined in the Special Provision "Maintenance and Protection of Traffic," the Contractor will not be permitted to perform any work which will interfere with the described traffic operations on all project roadways as follows:

#### **SR 712 (Bridge Street) (Between Howe Avenue and Route 34 (Main Street))**

Maintain the existing number of lanes of traffic, including turning lanes, on:

Monday through Friday between 6:00 a.m. and 9:00 p.m.

Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

The Contractor will be allowed to halt Bridge Street traffic for a period of time not to exceed ten minutes to perform work as approved by the Engineer on:

Monday through Friday between 12:00 a.m. and 6:00 a.m.

During stage construction, the existing number of lanes of traffic will be considered to be the number of lanes shown on the Maintenance and Protection of Traffic plans contained in the contract plans.

#### **Route 34 (Main Street)**

Maintain the existing number of lanes of traffic, including turning lanes, on:

Monday through Friday between 6:00 a.m. and 9:00 a.m. & between 2:00 p.m. and 7:00 p.m.

Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

Maintain at least one lanes of through traffic in the southbound direction and one lane of through traffic in the northbound direction on:

Monday through Friday between 9:00 a.m. and 2:00 p.m. & between 7:00 p.m. and 9:00 p.m.

Maintain at least one lane of through traffic in each direction on:

Monday through Friday between 9:00 p.m. and 10:00 p.m.

The Contractor will be allowed to halt Route 34 for a period of time not to exceed ten minutes to perform work as approved by the Engineer on:

Monday through Friday between 9:00 a.m. and 2:00 p.m.

The Contractor shall notify the Engineer, the Cities of Shelton and Derby Public Works Department, and emergency services at least two weeks in advance of the start of construction and change in staging.

#### **All Other Roadways**

Maintain the existing number of lanes of traffic, including turning lanes, on:

Monday through Friday between 6:00 a.m. and 9:00 a.m. & between 3:00 p.m. and 6:00 p.m.

Saturday and Sunday between 10:00 a.m. and 6:00 p.m.

**Construction Surveying**

The proposed and temporary pavement markings on SR 712 (Bridge Street) will be established as noted in the respective contract plans. The Contractor shall utilize the establish control points on SR 712 (Bridge Street) to establish the location of proposed and temporary pavement markings in accordance with Section 9.80 – Construction Surveying. This work will be paid for under the Item No. 0980001 – Construction Surveying.

**Additional Lane Closure Restrictions**

It is anticipated that work on Project 36-184 Reconstruction of Route 34 (Main Street) in Derby may be ongoing simultaneously with this project and the work at Bridge Street and Main Street will need to be coordinated between the two projects if occurring simultaneously. Other projects may be going on and the Contractor shall be aware of all ongoing projects and anticipate that coordination will be required to maintain proper traffic flow at all times on all project roadways, in a manner consistent with these specifications and acceptable to the Engineer.

The Contractor shall notify the Engineer, the Cities of Shelton and Derby Public Works Department, and emergency services at least two weeks in advance of the start of construction and change in staging.

## **SECTION 12.00 – GENERAL CLAUSES FOR HIGHWAY SIGNING**

### **Description:**

Work under this item shall conform to the requirements of Section 12.00 supplemented as follows:

### **12.00.07 – Global Positioning System (GPS) coordinates for signs:**

The Contractor shall obtain and provide to the Engineer sign installation data, including Global Positioning System (GPS) latitude and longitude coordinates, for all new permanent State owned and maintained signs (temporary and construction signs are not to be included) installed in the project. The Engineer shall forward the sign data to the Division of Traffic Engineering for upload into the Highway Sign Inventory and Maintenance Management Program (SIMS). Sign data submissions or questions relating to SIMS or GPS shall be sent to [DOT-SignInventory@ct.gov](mailto:DOT-SignInventory@ct.gov).

The horizontal datum is to be set to the State Plane Coordinate System, North American Datum of 1983 (NAD83) in feet. The minimum tolerance must be within 10 feet. The format of the GPS information shall be provided in a Microsoft Office compatible spreadsheet (Excel) file with data for each sign. The record for each sign installed is to be compatible with the anticipated CTDOT Sign Inventory and Management System (CTSIMS). The following format shall be used. However, the data fields noted by “#” are not required for the project submission. These entries will be completed as part of the Traffic Engineering CTSIMS data upload.

The cost of this work shall be included in the cost of the respective sign face – sheet aluminum and sign face – extruded aluminum items. The receipt of this electronic database must be received and accepted by the Engineer prior to final payment for items involving permanent highway signing. The electronic database information shall detail information regarding the sign actually installed by the project.

Field Number	Type	size	Description
1	text	20	Record Number (starting at 1...)
2	text	20	Sign Catalog Number
# 3	text	10	Size Height
# 4	text	10	Size Width
5	text	25	Legend
# 6	text	10	Background Color
# 7	text	10	Copy Color
8	Link	25	Material (see acceptable categories)
9	text	30	Comments if any
# 10	text	20	MUTCD Type
11	text	15	Town
12	text	5	Route
13	text	5	Route direction

#	14	text	10	Highway Log Mileage
	15	text	15	Latitude
	16	text	15	Longitude
	17	text	25	Mounting Type
	18	text	25	Reflective Sheeting Type
	19	date	25	Date Installed
	20	text	10	Number of Posts
	21	text	255	Sheeting Manufacturer name and address
	22	text	15	State Project Number (or)
	23	text	15	Encroachment Permit number.
	24	Graphic	*	Sign Picture Graphic.

\* Graphics provided shall be representative of the sign supplied and be in color. Graphic formats shall be either JPG or TIFF and provided with a recommended pixel density of 800 x 600. The graphic shall be inserted in the supplied media in field 24 for each sign.

**NOTICE TO CONTRACTOR - FORM 818 ARTICLE 1.05.19 – FIELD  
ERECTOR PREQUALIFICATION**

The following requirements will be incorporated into 1.05 – Control of the Work to be included in Contracts as of the January 2021 Supplements to the Standard Specifications, Form 818:

**1.05.19—Field Erector Prequalification:** Contractors erecting structural steel for Department projects are required to possess the appropriate AISC Certified Steel Erector (CSE) Certification as follows.

1. For Department bridge and large sign installation projects, Contractors are required to possess the certification stated in the Contract. All Contractors performing structural steel work on new construction or rehabilitation work of bridges will be required to possess CSE certification with a Bridge Erection Endorsement.
2. For Department Facilities projects, CSE certification for Steel-Framed Buildings is required when erecting steel on both new and existing Facilities projects.

Those affected shall plan accordingly.

## **ITEM #0101143A – HANDLING AND DISPOSAL OF REGULATED ITEMS**

### **Description:**

Work under this item shall include the management (handling and disposal) of regulated items and all associated work by persons who are employed by a CTDEEP permitted Spill Contractor and trained/certified in accordance with OSHA Hazard Communication regulations. Regulated items include hazardous and other materials and wastes, the disposal of which is restricted by Federal and/or State laws and regulations, and which may be a component of equipment or other items located on-site. Regulated items include those listed herein, or additional similar items identified on site by the Engineer. Work under this item does not include asbestos containing materials, lead paint, contaminated or hazardous soils.

Activities shall be performed in accordance with, but not limited to, the current revision of the USEPA & CTDEEP Hazardous Waste Regulations (40 CFR 260-282, 22a-209 and 22a-449(c)), USEPA PCB Regulations (40 CFR 761), USEPA Protection of Stratospheric Ozone (40 CFR 82), OSHA Hazard Communication (29 CFR 1910.1200), OSHA Hazardous Waste & Emergency Response Regulations (29 CFR 1910.120), USDOT Hazardous Materials Regulation (49 CFR 171-180), OSHA, RCRA, CERCLA, CAA, TSCA, and all other laws and regulations.

The work activities include the removal, handling, packing, labeling, transport, manifesting, and recycling or disposal of various regulated items at the Project site prior to beginning planned demolition activities.

The Contractor is solely responsible for verifying actual locations and quantities of the items with hazardous/regulated material/waste constituents and for their proper handling and disposal. The recycling or proper disposal, as appropriate, of all regulated items shall be completed prior to the initiation of any demolition activities.

### **Materials:**

All materials shall be suitable for the management of regulated items and shall meet all applicable federal, state and local regulations. Such materials include, but are not limited to, proper containers, packing materials, labels, signs, shipping papers, personnel protective equipment (PPE) and spill kits.

### **Construction Methods:**

#### **(1) Allowable Disposal/Recycling Facilities**

**Disposal facilities for RCRA-hazardous, TSCA-hazardous, Connecticut Regulated, and Universal wastes shall be chosen from among those listed below. No other facility shall be used for these types of wastes without the written approval of the Engineer.**

Advanced Disposal Services  
Greentree Landfill  
635 Toby Road  
Kersey, PA 15846  
Phone: (814) 265-1744 Fax: (814) 265-8745  
MSW, C&D, asbestos, PCB remediation waste <50  
ppm, petroleum contaminated soils, nonhazardous solid  
wastes

Advanced Disposal  
(managed by Interstate Waste Services)  
7095 Glades Pike  
Summerset, PA 15501  
Phone: (814) 444-0112 Fax: (814) 444-0127  
MSW, C&D debris, residual waste, sewer sludge,  
incinerator ash, asbestos

Allied Waste Niagara Falls Landfill, LLC  
5600 Niagara Falls Blvd.  
Niagara, NY 14304  
Phone: (716) 285-3344 Fax: (716) 285-3398  
Non-hazardous waste, industrial solid waste, municipal  
sewage treatment sludge, contaminated soil & debris,  
asbestos waste, C&D debris, industrial process sludge

American Lamp Recycling, LLC  
26 Industrial Way  
Wappingers Falls, NY 12590  
Phone: (845) 896-0058 Fax: (845) 896-1520  
Mercury containing device, universal waste

Tradebe (Bridgeport United Recycling, Inc.)  
50 Cross Street  
Bridgeport, CT 06610  
Phone: (203) 334-1666 Fax: (203) 334-1439  
RCRA & CRW waste oil, fuel, wastewater

Clean Earth of Carteret  
24 Middlesex Ave.,  
Carteret, NJ 07008  
Phone: (732) 541-8909 Fax: (732) 541-8505  
Concrete, brick, block, street sweepings, stone, rock,  
asphalt and petroleum contaminated soil

Clean Earth of Philadelphia, Inc.  
3201 South 61 St.,  
Philadelphia, PA 19153  
Phone: (215) 724-5520 Fax: (215) 724-2939  
Petroleum contaminated soil

Clean Earth of North Jersey, Inc. (aka CENJ)  
115 Jacobus Ave,  
South Kearny, NJ 07105  
Phone: (973) 344-4004 Fax: (973) 344-8652  
RCRA liquid and solid, asbestos

Clean Earth of Southeast Pennsylvania, Inc.  
7 Steel Road,  
Morrisville, PA 19067  
Phone: (215) 428-1700 Fax: (215) 428-1704  
Petroleum contaminated soil  
Clean Harbors Environmental Services, Inc.  
2247 South Hwy. 71,  
Kimball, NE 69145  
Phone: (308) 235-1012 Fax: (308) 235-4307  
RCRA liquid, solid & sludge

Clean Harbors Environmental Services, Inc.  
Cleveland Facility  
2900 Rockefeller Ave.,  
Cleveland, OH 44115  
Phone: (216) 429-2401 Fax: (216) 883-1918  
RCRA liquid: aqueous organic & inorganic wastewater

Clean Harbors Environmental Services, Inc.  
Spring Grove Facility  
4879 Spring Grove Ave.,  
Cincinnati, OH 45232  
Phone: (513) 681-6242 Fax: (513) 681-0869  
RCRA liquid, solid & sludge: aqueous organic &  
inorganic wastewater, PCB wastewater treatment

Clean Harbors of Baltimore, Inc.  
1910 Russell St,  
Baltimore, MD 21230  
Phone: (410) 244-8200 Fax: (410) 752-2647  
RCRA liquid: aqueous organic & inorganic wastewater

Clean Harbors of Braintree, Inc.  
1 Hill Avenue,  
Braintree, MA 02184  
Phone: (781) 380-7134 Fax: (781) 380-7193  
RCRA & TSCA liquid & solid

Clean Harbors of Connecticut, Inc.  
51 Broderick Road,  
Bristol, CT 06010  
Phone: (860) 583-8917 Fax: (860) 583-1740  
RCRA & CRW liquid

Clean Harbors of Woburn

(Murphy's Waste Oil Services, Inc.)  
252 Salem Street,  
Woburn, MA 01801  
Phone: (781) 935-9066 Fax: (781) 935-8615  
RCRA liquid: oil, oil/water mixtures; CRW oil filters,  
oily soil & debris, F001/F002 contaminated oils,  
antifreeze

Clinton Landfill  
242 Church Street  
Clinton, MA 01510  
Phone: (978) 365-4110 Fax: (978) 365-4106  
Comm-97 soils and other materials subject to a BUD  
and additional review by MADEP (\*2-week lead time  
for review by MADEP)

Colonie Landfill (Waste Connections, Inc.)  
1319 Loudon Rd,  
Cohoes, New York 12047  
Phone: (518) 783-2827 Fax: (518) 786-7331  
Non-haz. wastes, special wastes, contaminated soil

Cumberland County Landfill  
(aka Community Refuse Services  
Managed by Interstate Waste Services)  
135 Vaughn Road,  
Shippensburg, PA 17257  
Phone: (717) 729-2060 Fax: (717) 423-6822  
Municipal solid waste, non-hazardous waste

ACV Enviro (aka Cycle Chem & General  
Chemical Corp.)  
217 South First Street,  
Elizabeth, NJ 07206  
Phone: (908) 355-5800 Fax: (908) 355-0562  
RCRA, TSCA liquid and solid

Envirite of PA (US Ecology)  
730 Vogelsong Road,  
York, PA 17404  
Phone: (717) 846-1900 Fax: (717) 854-6757  
RCRA hazardous wastes

Environmental Quality Company:  
Wayne Disposal Facility  
(aka EQ Michigan Disposal Waste Treatment Plant  
and Wayne Disposal Inc. Site #2)  
49350 North I-94 Service Drive  
Belleville, MI 48111  
Phone: (734) 697-2200 Fax: (734) 699-3499  
RCRA & TSCA liquid and solid

US Ecology (Environmental Quality Detroit Inc.)

1923 Frederick Street,  
Detroit MI 48211  
Phone: (734) 329-8017 Fax: (313) 923-3375  
RCRA & CRW liquid wastewater  
Environmental Soil Management of New York,  
LLC (ESMI of New York)  
304 Towpath Road,  
Fort Edward, NY 12828  
Phone: (518) 747-5500 Fax: (518) 747-1181  
Petroleum contaminated soil

Environmental Soil Management of NH  
67 International Dr.  
Loudon, NH 03307  
Phone: (603) 783-0228 Fax: (603) 783-0104  
Petroleum contaminated soil

Triumvirate (Formerly EnviroSafe Corporation  
Northeast & Jones Environmental Services)  
263 Howard Street,  
Lowell, MA 01852  
Phone: (978) 453-7772 Fax: (978) 453-7775  
RCRA & TSCA liquid and solid

Hazelton Creek Properties, LLC\*  
(Hazelton Mine Reclamation Project)  
280 South Church St.,  
Hazelton, PA 18201  
Phone: (570) 574-1010 Fax: (570) 457-3395  
Fresh, brackish or marine dredge material, coal ash,  
cement kiln dust, lime kiln dust, co-gen ash, regulated  
fill  
\*Please note that if this facility is to be used, each bin  
letter will require an additional 10 day (or more) waiting  
period on top of the 15 day lab period designated in the  
specs to allow for PADEP review.

Heritage Hazardous Waste Landfill (Heritage  
Environmental Services, LLC)  
4370 W County Rd 1275 N  
Roachdale, IN 46172  
Phone: (765) 435-2704 Fax: (315) 687-3898  
Hazardous Wastes, Asbestos

Manchester Landfill  
311 Olcott St.,  
Manchester, CT 06040  
Phone: (860) 647-3248 Fax: (860) 647-3238  
Municipal solid waste, non-hazardous waste,  
contaminated soil

Northeast Lamp Recycling, Inc.  
250 Main Street,

East Windsor, CT 06088  
 Phone: (860) 292-1992 Fax: (860) 292-1114  
 CRW solid waste, mercury containing devices & universal waste  
 Stericycle (Northland Environmental, LLC)  
 (aka PSC Environmental Systems)  
 275 Allens Ave.,  
 Providence RI 02905  
 Phone: (401) 781-6340 Fax: (401) 781-9710  
 RCRA liquid and solid

Ontario County Landfill  
 (Managed by Casella Waste)  
 3555 Post Farm Road,  
 Stanley, NY 14561  
 Phone: (585) 526-4420 Fax: (585) 526-5459  
 Municipal solid waste, non-hazardous waste solid,  
 special wastes including asbestos, ash from  
 boilers/incinerators, contaminated soil, demo debris

Paradise Heating Oil, Inc.  
 Quimby Street,  
 Ossining, NY 10562  
 Phone: (631) 926-2576 Fax: (718) 294-2226  
 CRW waste oil liquid

Phoenix Soil, LLC  
 58 North Washington Street  
 Plainville, CT 06062  
 Phone: (860) 747-8888 Fax: (203) 757-4933  
 Contaminated Soil

Red Technologies Soil  
 232 Airline Avenue  
 Portland, CT 06980  
 Phone: (860) 342-1022 Fax: (860) 342-1042  
 Temporary Storage & Transfer of contaminated soil

Republic Services Conestoga Landfill  
 420 Quarry Road  
 Morgantown, PA 19543  
 Phone: (610) 286-6844 Fax: (610) 286-7048  
 MSW, C&D debris, residual waste, contaminated soil,  
 asbestos \*Please note that if this facility is to be used,  
 each bin letter will require an additional 10 day (or  
 more) waiting period on top of the 15 day lab period  
 designated in the specs to allow for PADEP review.

Stericycle (Formerly Republic Environmental  
 Systems (aka Philip Services Corporation (PSC)  
 Republic)  
 2869 Sandstone Dr.,  
 Hatfield PA 19440

Phone: (215) 822-8995 Fax: (215) 997-1293  
 RCRA & TSCA industrial solid & sludge, aqueous  
 waste, contaminated soil, PCB waste, oil & petroleum  
 waste, organic waste  
 Soil Safe, Inc.  
 378 Route 130, Logan Township,  
 Bridgeport NJ 08085  
 Phone: (410) 872-3990 x1120  
 Fax: (410) 872-9082  
 Soil contaminated with petroleum or metals, some  
 industrial waste solids

The Southbridge Recycling & Disposal Park  
 165 Barefoot Rd.  
 Southbridge, MA 01550  
 Phone: (508) 765-9723, (603) 235-3597  
 Fax: (508) 765-6812  
 MSW, non-hazardous C & D waste, contaminated soil  
 for cover

Stablex Canada, Inc.  
 760 Industrial Blvd.  
 Blainville Quebec J7C 3V4  
 Phone: (450) 430-9230 Fax: (450) 430-4642  
 RCRA liquid and solid, industrial wastes

Ted Ondrick Company, LLC  
 58 Industrial Road,  
 Chicopee, MA 01020  
 Phone: (413) 592-2566 Fax: (413) 592-7451  
 Petroleum contaminated soil

Tradebe Treatment & Recycling  
 136 Gracey Ave.  
 Meriden, CT 06451  
 Phone: (203) 238-8114 Fax: (203) 238-6772  
 RCRA, CRW wastewater, oil, hazardous waste fuels,  
 hazardous and non-hazardous waste water

Tunnel Hill Reclamation  
 2500 Township Road, 205 Route 2  
 New Lexington, OH 43764  
 Phone: (914) 713-0203 Fax: (914) 713-0672  
 Municipal solid waste, non-hazardous waste,  
 contaminated soils

Waste Management  
 RCI Fitchburg Landfill  
 Fitchburg Princeton Road,  
 Westminster, MA 01473  
 Phone: (978) 355-6821 Fax: (978) 355-6317

Solid: MSW, non-hazardous waste, C&D, contaminated soil for use as cover material under MADEP COMM-97 policy

Phone: (603) 330-2197 Fax: (603) 330-2130  
Solid: MSW, C&D, PCB remediation waste (<50ppm), virgin petroleum contaminated soil, CRW solid waste

Turnkey Landfill (Waste Management of NH)  
TLR III Refuse Disposal Facility  
90 Rochester Neck Road, PO Box 7065  
Rochester, NH 03839

The category of material accepted by each facility listed above is for informational purposes only. The Contractor shall verify facility acceptance of each type of regulated item.

## **(2) Submittals**

Thirty (30) days prior to commencement of work involving the management of regulated items, the Contractor shall submit to the Engineer for approval, the following documentation:

1. Copy of Spill Contractor Permit registration issued by the CTDEEP.
2. Hazard communication training for all employees performing this work.
3. Names of the treatment facilities, recycling facilities and/or disposal facilities the Contractor intends to use to receive each type of regulated item.
4. Hazardous Material Transporter USDOT Certificate of Registration for each transporter.
5. Hazardous Waste Transporter Permit for the State of Connecticut, the destination state(s), and all other applicable states for each transporter.

Contractor shall provide the Engineer with a minimum of 48 hours notice in advance of scheduling, changing or canceling work activities.

## **(3) Regulated Item Management Provisions**

### **(a) General Requirements**

The Contractor's OSHA Competent Person shall be in control on the job site at all times during hazardous material management work activities. This person must be capable of identifying existing hazards, possess the authority to implement corrective measures to reduce/eliminate the hazards, comply with applicable Federal, State and Local regulations that mandate work practices, and be capable of performing the work of this contract. All employees who perform regulated material management related work shall be properly trained and qualified to perform such duties.

All labor, materials, tools, equipment, services, testing, insurance, and incidentals which are necessary or required to perform the work in accordance with applicable governmental regulations, industry standards and codes, and these specifications, shall be provided by the Contractor.

Ladders and/or scaffolds shall be in compliance with OSHA requirements, and of adequate length, strength and sufficient quantity to support the scope of work. Use of ladders/scaffolds shall be in conformance with OSHA 29 CFR 1926 Subpart L and X requirements.

Work performed at heights exceeding six feet (6') shall be performed in accordance with the OSHA Fall Protection Standard 29 CFR 1926 Subpart M including the use of fall arrest systems as applicable.

Inventory data from investigative surveys throughout the buildings are included herein and are presented for informational purposes only. Under no circumstances shall this information be the sole means used by the Contractor for determining the quantities or extent of the regulated items to be managed. The Contractor shall be responsible for verification of all field conditions affecting performance of the work. The Contractor shall submit to the Engineer for concurrence any additional items not listed herein that it believes to be regulated items included under this item. However, compliance with applicable requirements is solely the responsibility of the Contractor.

The Engineer will provide a Project Monitor to monitor the activities of the Contractor and inspect the work required. Environmental sampling shall be conducted as deemed necessary by the Engineer. Spill areas shall be cleaned by the Contractor until accepted by the Engineer. The Engineer may sample the spill area to demonstrate Contractor compliance with an acceptable standard.

#### (b) Personnel Protection

Prior to commencing work, the Contractor shall provide hazard communication training to all employees as necessary in accordance with OSHA 29 CFR 1926.59 and 29 CFR 1910.1200 and instruct all workers in all aspects of personnel protection, work procedures, emergency procedures and use of equipment including procedures unique to this project. Worker health and safety protocols that address potential and/or actual risk of exposure to site specific hazards are solely the responsibility of the Contractor.

The Contractor shall provide respiratory protection that meets the requirements of OSHA as required in 29 CFR 1910.134 and 29 CFR 1926.1000. A formal respiratory protection program, including appropriate medical surveillance, must be implemented in accordance with OSHA standards. The Contractor shall, as necessary, conduct exposure assessment air sampling, analysis and reporting to ensure the workers are afforded appropriate respiratory protection.

The Contractor shall provide and require all workers to wear appropriate personnel protective equipment, including protective clothing and respiratory protection, as required, within regulated work areas which exceed OSHA Personnel Exposure Limits (PELs) or when handling hazardous materials.

#### (c) Regulated Item Management Work Procedures

The Contractor shall not begin work until the Project Monitor is on-site.

Prior to beginning work on-site, the Contractor shall prepare waste characterization profile forms for each type of waste stream to be generated and forward such forms to the Engineer for review, approval and signature. Upon approval, the Contractor shall forward such forms to the appropriate disposal facilities for acceptance.

The Contractor shall utilize all appropriate engineering controls and safety and protective equipment while performing the work in accordance with OSHA, USEPA, USDOT, CTDEEP and Connecticut Department of Public Health DPH regulations.

The Contractor shall employ work practices so as to minimize the disturbance of the constituents in the regulated items, and prevent breakage and spills. In the event of a spill, the Contractor shall cordon off the area and notify the Engineer. The Contractor is responsible to have spills and the effected areas decontaminated to the acceptance of the Engineer by personnel trained in hazardous waste operator emergency response.

The Contractor shall carefully and properly remove, handle, pack, label and manifest all of the regulated items in waste containers specified and suitable to contain the waste in accordance with all federal and state regulations.

Prior to transportation and recycling and/or disposal, all proper USEPA, OSHA, CTDEEP and USDOT labels and placards shall be affixed to the waste containers and hazardous materials shipping papers such as waste manifests/bills of lading shall be completed.

**Bridge No. 01659, SR 712 over the Housatonic River, Derby/Shelton, CT**

**Prior to construction activity which would disturb such materials, properly remove, handle, pack, label, transport, manifest and recycle or dispose of the regulated items from those listed below:**

**The following hazardous/regulated materials and items have been identified associated with illumination light poles on Bridge No. 01659:**

- **Universal waste (UW) – LED lamps with Printed Circuit Boards – Illumination Light Poles**

**Upon discovery of any previously unidentified regulated items during renovation activities, the Contractor shall immediately notify the Engineer and work shall cease in that area until the Engineer can determine the extent of any impact and proper handling procedures are implemented.**

**(d) Waste Disposal**

Efforts shall be made to recycle the constituents of the regulated items rather than dispose of them in accordance with the waste minimization efforts required under RCRA.

RCRA hazardous waste shall not be stored on the job site in excess of 90 calendar days from the accumulation start date.

Connecticut Regulated Waste shall not be transported to a RCRA or TSCA permitted facility for disposal, unless otherwise allowed by the Engineer in writing.

All non-RCRA hazardous waste materials, regulated waste materials and recyclable waste items shall be manifested separately from RCRA and TSCA hazardous waste, and documented properly on non-hazardous waste manifests, waste shipment records, bills of lading or other appropriate shipping papers for transportation to the recycling and/or disposal facility.

The Contractor shall prepare each lab pack list and shipping document (manifests, waste shipment records, bills of lading, etc.) with all of the required information completed (including types of waste, proper shipping name, categories, packing numbers, amounts of waste, etc.) in accordance with applicable federal and state regulations. The document will be signed by an authorized agent representing ConnDOT as the Generator for each load that is packed to leave the site.

The Contractor shall forward the appropriate original copies of shipping papers to the Engineer the same day the regulated items leave the project site.

All vehicles departing the site transporting hazardous materials shall display proper USDOT placards, as appropriate for the type of waste being transported.

(e) Project Closeout Documents:

Within thirty (30) days after completion of the on-site project work, the Contractor shall submit to the Engineer copies of the following completed documents:

1. Hazardous Waste Manifests
2. Waste Shipment Records/Bills of Lading
3. Recycling Receipts

**Documents 1. through 3. must include the signature of an authorized disposal facility representative acknowledging receipt of hazardous materials.**

**Method of Measurement:**

The work of “Handling and Disposal of Regulated Items” shall be provided for in accordance with Article 1.04.05 – Extra Work.

**Basis of Payment:**

The work of “Handling and Disposal of Regulated Items” shall be paid for in accordance with Article 1.04.05 – Extra Work, which price shall include the management, removal, handling, packing, labeling, transport, manifesting, recycling or disposal of the regulated constituents in the specific equipment/items scheduled for impact at the project site, and all equipment, materials, tools and labor incidental to the work.

Final payment will not be made until completed copies of all Manifest(s), Waste Shipment Records, Bills of Lading and/or Recycling Receipts have been provided to the Engineer. Once

completed and facility-signed copies have been received in their entirety, the Engineer will make the final payment.

<u>Pay Item</u>	<u>Pay Unit</u>
Handling and Disposal of Regulated Items	Estimate

END OF SECTION

## **ITEM #0201601A – RELOCATION OF HISTORIC MONUMENT**

### **Description:**

Work under this item shall consist of removing the existing commemorative bronze plaques mounted to the existing parapets at the northwest and southeast corners of the bridge, storing, and replacing the plaques at the location shown on the plans or as directed by the Engineer. The plaques shall not be cleaned.

### **Method of Measurement:**

This work will be paid for on a lump sum basis and, therefore, will not be measured for payment.

### **Basis of Payment:**

This work will be paid for at the contract lump sum price for “Relocation of Historic Monument”, complete in place, which price shall include materials, equipment, tools, labor and work incidental thereto.

#### **Pay Item**

Relocation of Historic Monument

#### **Pay Unit**

LS

## **ITEM #0202452A - TEST PIT**

**Description:** Test pits shall be performed to determine the location of underground utilities. This work shall consist of the surveying, excavation and backfilling of materials necessary for the proper completion of the work, as ordered by the Engineer, in accordance with these specifications.

**Construction Methods:** The Contractor shall keep the affected utility owners apprised of the proposed test pit excavation. The Contractor shall excavate only as authorized and as directed by the Engineer. The size, depth and location will be as authorized by the Engineer. The Contractor shall furnish and employ such shores, braces, pumps, etc., as may be necessary for the protection of property, proper completion of the work and the safety of the public and employees of the Contractor and the Department. All bracing, etc., shall be removed when no longer required for the construction or safety of the work.

Wherever portions of existing full-depth bituminous concrete pavement are to be removed in conjunction with test pits, they shall be removed to neat lines.

The Contractor shall perform field surveys to establish the horizontal and vertical location and to document the type and size of the utilities at each test pit. The work shall be performed in accordance with the requirements of Section 9.80, Construction Surveying. The Contractor shall furnish copies of all test pit data to the Engineer.

The test pit shall not be backfilled until directed by the Engineer. If unsuitable backfill material is excavated, dispose as directed by the Engineer. Replace with suitable backfill and compact in accordance with Section 2.14. Repair all damaged bituminous pavement in accordance with Section 4.06.03. Sawcut the edges to neat lines if there will be no subsequent excavation at the test pit.

**Method of Measurement:** Test pits will be measured as each excavated, backfilled, surveyed, documented, and accepted per site and as directed by the Engineer. There will be no separate measurement for mobilization and demobilization associated with this item.

**Basis of Payment:** Test Pits will be paid for at the contract unit price each complete in place and accepted, which price shall include all materials, equipment, tools, handhole extensions, covers, surveys, and labor incidental thereto per site.

The price shall also include backfilling, patching roadways, and sidewalks in kind, restoration of the ground where required and the disposal of surplus material. No additional payment will be made for shoring, bracing, pumping, and bailing or for material or equipment necessary for the satisfactory completion of the work.

Pay Item  
Test Pit

Pay Unit  
E.A.

## **ITEM #0219011A – SEDIMENT CONTROL SYSTEM AT CATCH BASIN**

**Description:** This work shall consist of furnishing, installing, cleaning, maintaining, replacing, and removing sedimentation control at catch basins at the locations and as shown on plans and as directed by the engineer.

### **Materials**

Sack shall be manufactured from a specially designed woven polypropylene geotextile sewn by a double needle machine, using a high strength nylon thread. Sack shall be manufactured by one of the following or an approved equal:

Dandy Sack™  
Dandy Products Inc.  
P.O. Box 1980  
Westerville, Ohio 43086  
Phone: 800-591-2284  
Fax: 740-881-2791  
Email: [dlc@dandyproducts.com](mailto:dlc@dandyproducts.com)  
Website: [www.dandyproducts.com](http://www.dandyproducts.com)

FLeXstorm Inlet Filters  
Inlet & Pipe Protection  
24137 W. 111th St - Unit A  
Naperville, IL 60564  
Telephone: (866) 287-8655  
Fax: (630) 355-3477

The sack shall be manufactured to fit the opening of the catch basin or drop inlet. Sack shall have the following features: two dump straps attached at the bottom to facilitate the emptying of sack and lifting loops as an integral part of the system to be used to lift sack from the basin. The sack shall have a restraint cord approximately halfway up the sack to keep the sides away from the catch basin walls, this cord is also a visual means of indicating when the sack should be emptied. Once the strap is covered with sediment, the sack shall be emptied, cleaned and placed back into the basin.

### **Construction Methods:**

Installation, removal, and maintenance shall be per manufacturer instructions and recommendations.

**Method of Measurement:** Sedimentation Control at Catch Basin will be measured as each installed, maintained, accepted, and removed. There will be no separate measurement for maintenance or replacement associated with this item.

### **Basis of Payment:**

7/22/2020

Sedimentation Control at Catch Basin will be paid for at the contract unit price each complete in place and accepted, which price shall include all maintenance throughout construction, materials, equipment, tools, and labor incidental thereto.

Pay Item

Sediment Control System at Catch Basin

Pay Unit

Each

## **ITEM #0406999A - ASPHALT ADJUSTMENT COST**

**Description:** The Asphalt Adjustment Cost will be based on the variance in price for the performance-graded binder component of hot mix asphalt (HMA), Polymer Modified Asphalt (PMA), and Ultra-Thin Bonded Hot-Mix Asphalt mixtures completed and accepted during the Contract.

**The Asphalt Price is available on the Department of Transportation website at:**

<http://www.ct.gov/dot/asphaltadjustment>

### **Construction Methods:**

An asphalt adjustment will be applied only if all of the following conditions are met:

**I. For HMA and PMA mixtures:**

- a. The HMA or PMA mixture for which the adjustment would be applied is listed as a Contract item with a pay unit of tons.
- b. *The total quantity for all HMA and PMA mixtures in the Contract or individual purchase order (Department of Administrative Service contract awards) exceeds 1000 tons or the Project duration is greater than 6 months.*
- c. The difference between the posted *Asphalt Base Price* and *Asphalt Period Price* varies by more than \$5.00 per ton.

**II. For Ultra-Thin Bonded HMA mixtures:**

- a. The Ultra-Thin Bonded HMA mixture for which the adjustment would be applied is listed as a Contract item.
- b. The total quantity for Ultra-Thin Bonded HMA mixture in the Contract exceeds:
  - i. 800 tons if the Ultra-Thin Bonded HMA item has a pay unit of tons.
  - ii. 30,000 square yards if the Ultra-Thin Bonded HMA item has a pay unit of square yards.

Note: The quantity of Ultra-Thin Bonded HMA measured in tons shall be determined from the material documentation requirements set forth in the Ultra-Thin Bonded HMA item Special Provision.

- c. The difference between the posted *Asphalt Base Price* and *Asphalt Period Price* varies by more than \$5.00 per ton.
- d. No Asphalt Adjustment Cost will be applied to the liquid emulsion that is specified as part of the Ultra-Thin Bonded HMA mixture system.

**III. Regardless of the binder used in all HMA or PMA mixtures, the Asphalt Adjustment Cost will be based on PG 64-22.**

The Connecticut Department of Transportation (CTDOT) will post on its website, the average per ton selling price (asphalt price) of the performance-graded binder. The average is based on the high and low selling price published in the most recent available issue of the **Asphalt Weekly Monitor®** furnished by Poten & Partners, Inc. under the “East Coast Market – New England, New Haven, Connecticut area,” F.O.B. manufacturer’s terminal.

The selling price furnished from the Asphalt Weekly Monitor ® is based on United States dollars per standard ton (US\$/ST).

**Method of Measurement:**

Formula:  $\text{HMA} \times [\text{PG}\% / 100] \times [(\text{Period Price} - \text{Base Price})] = \$ \underline{\hspace{2cm}}$

where

- **HMA:**
  1. For HMA, PMA, and Ultra-Thin Bonded HMA mixtures with pay units of tons:  
The quantity in tons of accepted HMA, PMA, or Ultra-Thin Bonded HMA mixture measured and accepted for payment.
  2. For Ultra-Thin Bonded HMA mixtures with pay units of square yards:  
The quantity of Ultra-Thin Bonded HMA mixture delivered, placed, and accepted for payment, calculated in tons as documented according to the Material Documentation provision (Construction Methods, paragraph G) of the Ultra-Thin Bonded HMA Special Provision.
- **Asphalt Base Price:** The asphalt price posted on the CTDOT website 28 days before the actual bid opening posted.
- **Asphalt Period Price:** The asphalt price posted on the CTDOT website during the period the HMA or PMA mixture was placed.
- **PG%:** Performance-Graded Binder percentage
  1. For HMA or PMA mixes:
    - $\text{PG}\% = 4.5$  for HMA S1 and PMA S1
    - $\text{PG}\% = 5.0$  for HMA S0.5 and PMA S0.5
    - $\text{PG}\% = 6.0$  for HMA S0.375, PMA S0.375, HMA S0.25 and PMA S0.25
  2. For Ultra-Thin Bonded HMA mixes:  
 $\text{PG}\% = \text{Design \% PGB}$  (Performance Graded Binder) in the approved job mix formula, expressed as a percentage to the tenth place (e.g. 5.1%)

The asphalt adjustment cost shall not be considered as a changed condition in the Contract as result of this provision since all bidders are notified before submission of bids.

**Basis of Payment:** The "Asphalt Adjustment Cost" will be calculated using the formula indicated above. A payment will be made for an increase in costs. A deduction from monies due the Contractor will be made for a decrease in costs.

The sum of money shown on the Estimate and in the itemized proposal as "Estimated Cost" for this item will be considered the bid price although the adjustment will be made as described above. The estimated cost figure is not to be altered in any manner by the bidder. If the bidder should alter the amount shown, the altered figure will be disregarded and the original cost figure will be used to determine the amount of the bid for the Contract.

Pay Item  
Asphalt Adjustment Cost

Pay Unit  
est.

## **ITEM #0503420A – REMOVAL OF CONCRETE DECK (BRIDGE)**

Work under this item shall conform to the requirements of Section 5.03 of the Standard Specifications, Form 818, amended as follows:

**Description:** Delete Article 5.03.01 and add the following:

Work under this item shall consist of the removal and satisfactory disposal of the concrete bridge deck, and existing concrete sidewalks within the limits shown on the plans or as directed by the Engineer.

**Construction Methods:** The following is added to Article 5.03.03:

Removal of Concrete Deck (Bridge): All work shall proceed as directed by and to the satisfaction of the Engineer in accordance with the details shown on the plans and the requirements of Special Provision 0971001A “Maintenance and Protection of Traffic” and Section 1.08, “Prosecution and Progress”.

Material that is not specified for salvage shall be removed by methods that shall not cause damage to the salvaged material.

The removal shall not result in damage to any permanent construction (new or existing), to utilities, or to adjoining property. If any damage occurs, it shall be repaired by the Contractor to the satisfaction of the Engineer at no additional expense to the State.

The Contractor shall prepare and submit to the Engineer for review in accordance with Article 1.05.02 working drawings and written procedures for the removal of the existing concrete deck and sidewalks. Accepting of the Contractor’s plans shall not be considered as relieving the Contractor of any responsibility.

**Method of Measurement:** Delete the entire article and add the following to Article 5.03.04:

This work will be measured for payment by the number of square yards of concrete bridge deck and concrete sidewalks removed.

**Basis of Payment:** Payment will be made at the contract unit price per square yard for “Removal of Concrete Deck (Bridge)” which price shall include all equipment, tools and labor necessary thereto.

### **Pay Item**

Removal of Concrete Deck (Bridge)

### **Pay Unit**

S.Y.

## **ITEM #0503967A – TEMPORARY WORK PLATFORM**

**Description:** This work consists of the design, construction, maintenance, relocation and subsequent removal of temporary work platforms as needed to demolish the existing concrete parapets and construct the proposed concrete parapets.

This work also consists of furnishing a truck-mounted under-bridge access platform as need to perform the surface concrete repairs to the undersides and fascia of the concrete arches and substructure, as shown on the plans.

Temporary work platforms shall be used in conjunction with a debris shield. If a debris shield is not being installed in a particular location, then the temporary work platform shall be constructed such that construction debris and other materials are positively prevented from dropping into the Housatonic River below.

**Materials:** Any material or combination of materials may be used to construct the work platform system provided they are properly designed for the purpose intended. Systems utilizing proprietary components shall conform to the manufacturer's specifications and project specifications. The parts list shall be furnished for the proprietary system and the Contractor shall provide the material certificates for the parts.

**Construction Methods:** Design of Temporary Work Platforms: The design of temporary work platforms is the responsibility of the Contractor. The design shall conform to the latest edition of the AASHTO "Guide Design Specification for Bridge Temporary Works", the AASHTO Construction Handbook for Bridge Temporary Works, and applicable OSHA requirements including OSHA Safety and Health Requirements, 29 CFR 1926. Platform design shall be required to accommodate anticipated bridge expansion and contraction.

Plans and design calculations for temporary platforms shall be prepared by a licensed Professional Engineer registered in the State of Connecticut and submitted to the Engineer for review at least 30 days prior to construction of platforms. No platform construction shall be done until the Engineer's review has been made and all deficiencies have been addressed. The review of the platform plans by the Engineer shall not relieve the Contractor of any responsibility for safely and adequately designing and constructing platforms.

The temporary platform plan shall also include a description on the methods to provide access to the platform, and the procedures and equipment that will be used.

Platforms shall be constructed in accordance with the reviewed platform plans. If during platform construction, site conditions are such that changes to the platforms are required, new platform plans shall be submitted to the Engineer for review prior to continuing construction of the platforms. If, in the opinion of the Engineer, the shields are not secure, the Contractor shall remove and install them to the satisfaction of the Engineer.

Unless otherwise specified on the plans or approved by the Engineer, all temporary platforms shall be removed upon completion of repairs and post-installation inspections. The removal of temporary platforms shall be done in such a manner that no damage occurs to the structure.

The truck-mounted under-bridge access platform shall have the ability of reaching any point on the bridge requiring repair from the north sidewalk, as shown on the plans. The platform shall be one of the following:

1. Terex Hydra Platform HTP 20/66
2. Approved equal, as approved by the Engineer.

Any portion of the work platform acting as a debris shield must meet the requirements of the "Debris Shield" item.

**Method of Measurement:** This item, being paid on a lump sum basis, will not be measured for payment.

**Basis of Payment:** This work shall be paid for at the contract lump sum price for "Temporary Work Platform", which shall include the design, construction or furnishing of a truck-mounted platform, maintenance, relocation and subsequent removal of temporary work platforms; and all equipment, material, tools and labor incidental thereto.

**Pay Item**

Temporary Work Platform

**Pay Unit**

L.S.

## **ITEM #0601072A – SURFACE REPAIR CONCRETE**

Work under this item shall conform to the requirements of Section 6.01 and M.03.01 supplemented and amended as follows:

**Article 6.01.01-Description:** Add the following:

Work under this item includes removing unsound, deteriorated concrete as delineated by the Engineer, and placing a historically replicated concrete repair material to restore the deteriorated concrete to a sound and historically accurate condition.

This work also includes repairing the existing north wingwall penetrations after removal of the existing 8” gas main on the south fascia and removal of the existing communication conduits on the north fascia. The south wingwall penetrations will be repaired under the Item Cement Rubble Masonry.

**Article 6.01.02-Materials:**

- 1. Concrete:** Materials shall conform to section M.03 as modified herein below.

**Subarticle M.03.01 – Component Materials:** Add the following:

A mix design for “Surface Repair Concrete” shall be prepared and submitted by the Contractor to the Engineer for the Conservator’s approval. Approval of the submitted mix design is contingent upon verification by the Conservator by visual inspection that the fine and coarse aggregates of the proposed mix design match the aggregates of the historic concrete used at the bridge. This visual inspection shall be allowed to occur at the concrete batch plant, the aggregate source, through the furnishing by the Contractor to the Conservator of aggregate samples from the aggregate source, or any combination thereof as may be requested by the Engineer or Conservator.

The mix design shall be for a concrete design strength ( $f'_c$ ) of 3,000psi. The mix design shall replicate the color, fine and coarse aggregates of the original bridge with the exception that coarse aggregate is to be limited in size to  $\frac{3}{4}$ ” (No.6) and an appropriate amount of superplasticizing admixture is added.

**Subarticle M.03.01-1 – Coarse Aggregate:** Add the following:

The proportions of the various sizes of the existing coarse aggregate and the type of aggregate shall be replicated except that maximum size shall be limited to  $\frac{3}{4}$ ” (No.6) in size. The maximum aggregate size is to facilitate placement of concrete around reinforcing bars in patches that have been excavated to the minimum clearance of 1” behind the bars.

**Subarticle M.03.01-2 – Fine Aggregate:** Add the following:

The proportions of the various sizes of existing fine aggregate and the type of aggregate shall be replicated.

**Subarticle M.03.01-3 – Cement:** Add the following:

Cement shall be replicated. Gray and white cements may be blended to achieve the matching historic coloration, as approved by the Engineer. Type II Portland Cement generally yields mixtures lighter in color than Type I.

**Subarticle M.03.01-5 – Admixtures:** Add the following:

Superplasticizing Admixtures: The superplasticizer admixture shall be a high-range water reducer (HRWR) capable of increasing the slump of the mix from approximately 2.5” to 7” upon the addition of the amount recommended by the respective manufacturer. The HRWR shall conform to ASTM C494 Type F or Type G and shall be approved by the Engineer. The use of this material shall be in strict accordance with the respective manufacture’s written instructions and procedures.

Air-Entrainment – Air entrainment shall range between 4.5 and 7.5 percent. Air entraining admixtures may affect the color of the repair concrete and shall be considered in the development of color-matched concrete mix designs and the possible addition of pigments.

Color Pigments

The use of color pigments shall be approved by the Engineer. Dry pigments are to be synthetic mineral oxides conforming to ASTM C979, “Standard Specification for Pigments for Integrally Colored Concrete” but shall only be used if concrete is mixed in a central batch plant.

**Subarticle M.03.02-2 – Non-Standard CTDOT Mix Designs:** Add the following:

The concrete shall have a slump range 2-4 inches prior to the addition of the HRWR and from 6-8 inches slump after the addition of the HRWR. The addition rates of the airentraining admixture (A.E.A.) and the HRWR will vary. Frequent field testing of the air content and slump prior to and after addition of the HRWR will be the determining factor of actual addition rates for each admixture.

**Subarticle M.03.03-2 – Hand Mixed Concrete:** Add the following:

For hand mixing of the concrete, the Contractor shall provide scale(s) approved by the Engineer in which cement and aggregate can be accurately weighed for the required mix proportions.

The Contractor shall also have measuring graduates marked in ounces for the proportioning of the A.E.A. and the HRWR. Do Not mix the A.E.A. and the HRWR together before adding to the mix; the resultant solution will not work. DO NOT add the A.E.A. and the HRWR at the mixer simultaneously; these admixtures must be added separately in the mixing cycle. All manufactured materials shall be stored, mixed and used in strict accordance with the written recommendations of the respective manufactures.

**Article 6.01.03-Construction Methods:**

**Subarticle 6.01.03-III-9 - Finishing, add the following:**

The color of the patch shall be matched to the historic concrete of the existing bridge.

The Engineer will determine if the patch will also require a textured finish. The Contactor will design a patch that will replicate the color and texture of the clean surface of the existing concrete.

**Article 6.01.04 - Method of Measurement, add the following:** This work will be measured for payment by the number of cubic feet used in the acceptable patches. Where sound concrete has been unnecessarily removed, the excess material for the replacement patch will not be measured for payment.

**Article 6.01.05 - Basis of Payment, add the following:** This work will be paid for at the contract unit price per cubic foot for "Surface Repair Concrete", complete in place. The price shall include sawcutting, the removal of deteriorated concrete, and cleaning and surface preparation of the patch areas. It shall also include furnishing, placing, finishing, and proper curing of the concrete patch. All equipment, tools, labor and incidentals necessary to complete the work shall also be included in the cost of this item.

Scaffolding for access and Engineer inspection shall be paid for under the Item "Temporary Work Platform. Debris shield shall be paid for under the Item "Debris Shield".

Welded wire fabric and anchors will be paid for under the item "Deformed Steel Bars - Galvanized."

**Pay Item**  
Surface Repair Concrete

**Pay Unit**  
C.F.

## **ITEM #0601121A – PARAPET CONCRETE**

Work under this item shall conform to the requirements of Section 6.01 amended as follows:

### **Article 6.01.02 – Materials:** Add the following:

The Contractor shall prepare a minimum 4' x 4' mock-up panel to demonstrate that the proposed parapet will match existing historic concrete in color, texture, and general appearance. The mock-up will be viewed from a distance of 10 feet for color and texture evaluation against the clean concrete it is intended to match. Should the Engineer or Conservator determine that the mock-up does not match the existing concrete, additional mock-ups will be required. The Contractor shall adjust the color and/or texture of the concrete mix design and assist in the preparation of all mockups until the Engineer determines that a match has been attained.

The Engineer will determine if the patch shall incorporate techniques to simulate exposed aggregate, where applicable. The Contractor shall submit for approval their recommendations for simulating the exposed aggregate finish. The submission shall include:

- aggregate size, type, and distribution
- technique for exposing the aggregate in the finished patch
- color matched stain

The mock-up shall incorporate the recommendations of the approved submission for simulating the exposed aggregate finish.

The Contractor is responsible for verifying compatibility of the selected color-matched stain with the selected penetrating sealer protective compound with the manufacturers. Both products shall be applied to the mock-up in order to determine compatibility. If the products are not compatible, penetrating sealer protective compound shall not be used on the parapets.

### **Article 6.01.03 – Construction Methods:** Add the following:

Any work on the bridge shall duplicate the historical concrete with material which matches it in form, color, and surface texture, particularly the exposed aggregate of the parapet panels. The color and finish texture of the replacement parapets shall match the existing. See specification 0601890A – Color-Matched Stain For Concrete.

## **ITEM #0601890A – COLOR-MATCHED STAIN FOR CONCRETE**

**Description:** Work under this item shall consist of furnishing and uniformly applying a color-matched stain to concrete surfaces within the limits indicated on the plans and as directed by the Engineer.

### **Materials:**

Stain: Shall be a mineral silicate of one of the following:

“Solalit” by KEIM

“Potassium Silicate Coating” by Cathedral Stone

“Everkote 300” by Edison Coatings

### **Construction Methods:**

“Color-Matched Stain for Concrete” shall be limited in its application on historic concrete bridges. It shall be used only where specified on the plans and as directed by the Engineer.

The color of the stain shall be matched to the historic concrete of the existing bridge or shall be matched to a color selected by the Engineer.

The Contractor shall prepare a “mock-up” panel to demonstrate that the stain will match the existing historic concrete in color. The mock-up shall also duplicate the surface texture of the parapets, particularly the exposed aggregate of the parapet panels. The panel shall be between 5 and 10 square feet in size and shall be constructed with a concrete which has been approved as a match to the concrete to be stained. A minimum of five shades of color shall be presented on the mock-up for the Engineer’s evaluation and selection.

The stain sample on the panel will be viewed from a distance of 10 feet for color evaluation against the clean concrete it is intended to match. Should the Engineer determine that none of the mock-up colors provide a match to the existing concrete, additional mock-ups will be required at no additional cost to the State. The Contractor shall adjust the color and/or texture of the coatings until the Engineer determines that a match has been attained.

All necessary concrete repair or restoration work shall be completed prior to the application of the stain, including the patching of spalls and other unsound concrete by the applicable contract items.

Surface preparation, as may be applicable, and the application of the stain, number of coats, rate of coverage, method of application, application ambient temperature range, and other pertinent criteria shall be in strict accordance with the printed product(s) instructions supplied by the manufacturer and as directed by the Engineer.

No bridge shall receive an application of the specified material(s), including any necessary surface preparation materials, prior to the following criteria being met:

- 1) The bridge has been surface prepped in accordance with the appropriate item, and has been approved by the Engineer.
- 2) The technical representative's recommendations for surface preparation have been followed.
- 3) The specified material mock-up, as described elsewhere within this specification, has been approved by the Engineer as a match to the existing historic concrete in color

**Method of Measurement:** This work will be measured for payment by the actual number of square feet of "Color-Matched Stain for Concrete" applied by the Contractor and accepted by the Engineer.

**Basis of Payment:** This item will be paid for at the contract unit price per square foot for "Color-Matched Stain for Concrete", complete, which price shall include all materials, applicable surface preparation, mock-ups, technical representation and/or material application training by the manufacturer's technical representative, equipment, tools, and labor.

**Pay Item**

Color-Matched Stain for Concrete

**Pay Unit**

S.F.

## **ITEM #0601892A – COLOR-MATCHED CRACK SEALANT FOR CONCRETE**

**Description:** Work under this item shall consist of furnishing and installing a color-matched waterproofing sealant at locations noted within the plans and as directed by the Engineer.

### **Materials:**

Sealants shall be one of the following or approved equal:

“790 Silicone Sealant” by Dow Corning

“Flexi-Fill 530” by Edison Coatings

Fine aggregates determined by the Conservator to be a match to the aggregates of the historic concrete shall be incorporated into the surface finish of the selected crack sealant.

**Construction Methods:** “Color-Matched Crack Sealant for Concrete” shall be limited in its application on historic concrete bridges. It shall be used only where specified on the plans and as directed by the Engineer.

The work for this item shall be done in accordance with the manufacturer’s product specification.

The crack shall be excavated by Dremel-type tool to a width of no more than 1/8” and a depth of 1/4”. Areas of concrete adjacent to the crack shall be masked off with heavy duct tape. Do not build up heavy excess material along tape edges. Pull tape after initial set. Immediately remove any runs or excess adhesive using xylene or other appropriate solvent.

### **Mock-Up:**

The Contractor shall demonstrate that a sample of the sealant will match the existing historic concrete in color and texture by incorporating into the surface fine aggregate approved by the Conservator as a match to the fine aggregate in the historic concrete. The sealant sample will be viewed from a distance of 10 feet for color evaluation against the existing concrete. The Contractor shall adjust the color of the sealant, as necessary to obtain a successful match and approval by the Engineer.

All necessary concrete repair or restoration work at the location to receive the specified materials shall be completed prior to the application of the materials, including the patching of spalls and other unsound concrete by the applicable contract items.

The approved mock-up shall be large enough to allow multiple attempts to simulate the historic concrete appearance.

**Method of Measurement:** This work will be measured for payment by the actual number of linear feet of “Color-Matched Crack Sealant for Concrete” applied and accepted.

**Basis of Payment:** This item will be paid for at the contract unit price per linear foot for “Color-Matched Crack Sealant for Concrete”, complete, which price shall include all materials, applicable crack preparation, masking, surface finish through the inclusion of fine aggregate, technical representation and/or material application training by the product representative, equipment, tools, and labor.

The cost for developing mock-ups of color-matched crack sealant for approval will not be measured for payment, but will be included in the general cost of “Color-Matched Crack Sealant for Concrete.”

**Pay Item**

Color-Matched Crack Sealant for Concrete

**Pay Unit**

L.F.

## **ITEM #0601954A – EPOXY INJECTION CRACK REPAIR**

**Description:** This item shall consist of rebonding cracked concrete structures with a two-component modified epoxy resin system injected in to the crack under low pressure using continuous positive displacement metering and mixing equipment, as shown on the plans or as directed in accordance with these specifications.

The Contractor shall not perform any repair work without prior approval by the Engineer for locations, limits, and type of repairs.

**Materials:** The epoxy resin shall be a pre-qualified material (see attached Appendix A). A Material Certificate and a Certified Test Report in accordance with Article 1.06.07 shall accompany each batch or lot of the material delivered to the job site to verify the epoxy resin's compliance with the manufacturer supplied infrared spectroscopy test results. A sample of liquid epoxy resin Components A and B shall be taken and shall consist of one pint per batch of each component represented in each shipment. The samples shall be presented to the Laboratory a minimum of 14 calendar days before incorporation of any of the batch into the work. The Laboratory shall conduct the Infrared Spectroscopy Test on the samples (see attached Appendix A). Each test result shall be compared to the "Pre-qualification Procedures" test results on file with the Laboratory. Two materials are considered to be identical if all of the absorption points agree as to wave length and relative magnitude of the peaks in comparison with the other points of absorptions.

A batch of each component will be defined as that of material which has been subjected to the same unit chemical or physical mixing process intended to make the final product substantially uniform.

Each component shall be packaged in steel containers not larger than 5 gallons in volume. The containers shall have lug type crimp lids with ring seals, shall be new, shall not be less than 0.024-inch nominal thickness, and shall be well sealed to prevent leakage. If a lining is used in the containers, it shall be of such character as to resists any action by the components. Each container shall be clearly labeled with the description (Component A or B), the manufacturer's name, date of manufacture, batch number, and the following warning:

**CAUTION:** *This material will cause severe dermatitis if it is allowed to come in contact with the skin or eyes. Use gloves and protective creams on the hands. Should this material contact skin, wash thoroughly with soap and water. Do not attempt to remove this material from skin with solvents. If any gets in the eyes, flush for 10 minutes with water and secure immediate medical attention.*

Any material which shows evidence of crystallization or a permanent increase in viscosity or settling of pigments which cannot be readily redispersed with a paddle shall not be used.

**Construction Methods:** A survey will be undertaken by the Engineer on the areas designated on the plans to determine the exact limits and location of the repair areas under this item. Cracks less than  $\frac{1}{8}$ " in width need not be repaired under this item.

At the time of mixing, Components A and B and the substrate temperature shall be between 50°F and 85°F, unless the material has been prequalified at a temperature less than 77°F, in which case this lesser temperature shall govern the use of the material. Any heating of the adhesive components shall be done by application of the indirect heat. Immediately prior to filling the tanks of the mixing equipment, each component shall be thoroughly stirred with a paddle. Separate paddles shall be used to stir each component.

Prior to sealing, the crack shall be cleaned free of dust, silt and any other material which would impair bonding. Cleaning shall be done with oil-free compressed air jets or preferably by vacuum cleaning with an industrial vacuum cleaner.

Injection ports shall be inserted in the cracks at intervals recommended by the epoxy manufacturer. The Contractor may use either surface or insertable injection ports, whichever is recommended by the epoxy manufacturer. Spacing of the ports shall be such that the injected adhesive will substantially fill the crack without excessive waste. The spacing of the ports shall be adjusted as the injection process progresses in order to meet this requirement.

Drilling of the injection ports shall be done with a hollow drill bit to which vacuum is applied with an industrial vacuum cleaner. The Contractor shall avoid reinforcing steel during drilling operations. A pachometer may be used to locate and avoid reinforcing steel.

The surface of the crack between ports shall be sealed with tape and/or temporary surface sealant which is capable of retaining the epoxy adhesive in the crack during pressure injection and shall remain in place until the epoxy adhesive has hardened. Sealant tape and/or other temporary surface sealant shall be removed when no longer required and any spillage of epoxy shall be removed. No cleanup of surfaces not generally viewed by the public will be required unless the surface sealant will interfere with subsequent surface treatments.

Epoxy adhesive shall be pumped into the cracks through the injection ports. The pump, hose, injections gun and appurtenances shall properly proportion and mix the epoxy and shall be capable of injecting the epoxy at a sufficient rate and pressure to completely fill all designated cracks. A suitable gasket shall be used on the head of the injection gun to prevent the adhesive from running down the face of the concrete. Pumping pressure shall be kept as low as practicable.

The temperature of the concrete shall not be less than 50°F at the time epoxy is injected, unless the epoxy has been prequalified at a lower temperature as hereinbefore provided, in which case the lower temperature shall govern.

For a crack with a uniform thickness, the epoxy adhesive shall be forced into the first port at one end of the crack until adhesive runs in substantial quantity from the next adjacent port. The first port shall then be sealed and injection shall commence at the next port. Injection shall then continue from port to port in this manner until the crack is fully injected.

Cracks with varying thickness shall have the epoxy adhesive forced into the port at the widest gap in the crack until adhesive runs in substantial quantity from the two adjacent ports. The first port shall then be sealed and injection shall commence at the adjacent port corresponding to the shorter side of the crack. Injection shall then continue from port to port in this manner until the shorter side of the crack is fully injected. Similarly, injection shall continue from port to port on the longer side of the crack, beginning with the port that was filled with epoxy adhesive but not sealed, until the crack is fully injected.

For slanting or vertical cracks, pumping shall start at the lower end of the crack. Where approximately vertical and horizontal cracks intersect, the vertical crack below the intersection shall be injected first. The ports shall be sealed by removing the fitting, filling the void with epoxy and covering with tape or surface sealant.

Before starting injection work and at 2-hour intervals during injection work, whenever requested by the Engineer, a 3 fluid-ounce sample of mixed epoxy shall be taken from the injection gun. Should these samples show any evidence of improper proportioning or mixing, injection work shall be suspended until the equipment or procedure are corrected.

Samples obtained above shall be used directly, without further stirring, to make test pieces for the Slant Shear Strength on Dry Concrete. One test piece shall be made at the beginning, the middle and the end of daily operations. The samples shall be allowed to cure for 7 days in the "Concrete Cylinder Curing Box". On the 7<sup>th</sup> day, the samples shall be removed to the Laboratory and tested in accordance with the requirement for the Slant Shear Strength (see attached Appendix A).

Each sample shall be numbered consecutively and dated (with a waterproof marker) and shall note which sample represents which part of the structure.

Technical Advisor: The Contractor shall provide the Engineer with a notarized statement showing a specific record of epoxy injections actually made by the Contractor and/or a specific record of training of the employees in epoxy injection repairs taught by the epoxy manufacturer. If the statement is not produced or is deemed insufficient by the Engineer, the contractor shall obtain the services of a Technical Advisor who is employed by the epoxy manufacturer. The Technical Advisor shall assist the Engineer and the Contractor in the correct use of the injection resin. The Advisor shall be a qualified representative, approved by the Engineer, and shall be at the site of the work when the work begins in connection with the epoxy injection, and at such other times as the Engineer may request until completion of work under this item.

**Methods of Measurement:** This work will be measured for payment by the total length in linear feet of all cracks, which have been designated by the Engineer to be injected and which were subsequently filled with epoxy, completed and accepted by the Engineer.

Where a crack designated for repair under this item extends around a corner of a concrete member, the length of crack on both faces will be measured for payment.

**Basis of Payment:** This work will be paid for at the contract unit price per linear foot for “Epoxy Injection Crack Repair”, complete in place, which price shall include cleaning and preparing cracks to be epoxy injected, all materials, equipment, tools, labor and clean up incidental thereto.

**Pav Item**

Epoxy Injection Crack Repair

**Pav Unit**

L.F.

## APPENDIX A

### Prequalification Procedure

The Prequalification Procedure shall consist of the following test procedures on the mixed epoxy resin at a temperature of 77°F, unless the Contractor desires to use the material at a lower temperature than 50°F, in which case the lower temperature shall be used to condition the material and test pieces.

**Test:           Viscosity**

Requirement: 900 centipoise, maximum at 77°F (62°F)  
4000 centipoise, maximum at any test temperature

Test Method: ASTM D2393

**Test:           Gel Time (Pot Life)**

Requirement: 4 to 60 minutes

Test Method:

A. Apparatus:

1. Unwaxed paper cups, 8 oz, 2 inches 4 1/4" at base.
2. Wooden tongue depressor with ends cut square.
3. Stainless steel spatula with 6"x1" blade and with end cut square.
4. Stopwatch, 1 second or smaller divisions.
5. Balance, 0.1 gram divisions.

B. Test Procedure:

1. Condition both Components A and B to required temperature (62°F).
2. Measure proper volumes of well mixed Components A and B into an 8-oz. unwaxed cup to yield total mass of 60 (62.0) grams.
3. Start stopwatch immediately and mix components for 60 seconds, stirring with a wooden tongue depressor, taking care to scrape the sides and bottom of the cup periodically.
4. Place the sample at the required temperature (62°F) on a wooden bench top which is free of excessive drafts.
5. Probe the mixture with the tongue depressor once every 30 seconds starting 4 minutes from the time of mixing.
6. The time at which a soft stringy mass forms in the cup is the gel time.

**Test:           Slant Shear Strength on Wet Concrete**

Requirement: 1700 psi, minimum after 7 days of cure in air at the required temperature (62°F).

**Test:           Slant Shear Strength on Dry Concrete**

Requirement: 4500 psi, minimum after 7 days of cure in air at the required temperature (62°F).

**Test:           Slant Shear Strength****A. Materials**

1. Ottawa sand, ASTM C109
2. Portland cement Type II
3. Water

**B. Apparatus:**

1. Suitable mold to make diagonal concrete mortar block with a square base of 2-inch sides, and having one 2"x4" diagonal face, starting about  $\frac{3}{4}$ " above the base. The diagonal faces of two such blocks are bonded together producing a block of 2"x2"x5" dimensions.
2. Blocks are made from the following composition:
 

- Ottawa sand, ASTM C109	30.1 lbs
- Portland Cement Type II	12.1 lbs
- Water	4.8 lbs

Cure blocks 28 days in a fog room. Dry and lightly sandblast diagonal faces.
3. Suitable test press.

**C. Test Procedure:**

Condition the components for 4 hours at the required temperature (62°F). Without entrapping air, stir the separate components for 30 seconds and place the proper volumes of each component on a plate and mix with a spatula for 60 seconds. Apply a coat approximately 0.010-inch thick to each diagonal surface. Place four  $\frac{1}{8}$ " square pieces of shim stock 0.012" thick on one block to control final film thickness.

Before pressing the coated surface together, leave the blocks so that the coated surfaces are horizontal until the epoxy reacts slightly to prevent excessive flow. Press diagonal surfaces of each block together by hands and remove excess epoxy adhesive.

Align the blocks so that the ends and sides are square and form a 2"x2"x5" block. Use blocks of wood or metal against each 2"x2" end to keep the diagonal faces from slipping until epoxy hardens.

After the required cure time, apply a suitable capping compound to each of the 2"x2" suitable testing apparatus at the rate of 5000 lbs/min until failure.

Report results in pounds per square inch =  $\frac{1}{4}$  x (Load in Pounds)

For wet shear strength, soak another set of block in water for 24 hours at the required temperature (62°F). Remove and wipe off excessive water. Prepare, cure and test sample according to above test procedure.

**Test:           Tensile Strength**

Requirement: 4500 psi, minimum

**Test: Elongation**

Requirement: 15% maximum

Test Method: Tensile Strength and Elongation

**A. Apparatus:**

1. Leveling table about 12"x8" with removable rim ¼" thick by ½" wide.
2. Mylar or similar plastic sheeting 0.004" thick.
3. Air circulation oven capable of maintaining 158°F (63°F).
4. Cutting die, Figure 1.
5. Thickness gauge, ⅛".
6. Release agent, non-silicone type.

**B. Procedure:**

1. Place mylar sheet on leveling table.
2. Coat inside edge and bottom of rim with release agent and secure table with screws.
3. Level the table.
4. Mix sufficient volume of well-mixed Component A and well-mixed Component B in the proper volumes so as to be able to form a layer 1/8" deep when placed inside of the ring on the leveling table.
5. Introduce as few bubbles as possible during mixing.
6. Flush surface of epoxy with a heat gun or Bunsen burner to remove air bubbles on surface. Repeat if necessary.
7. Allow the specimen to cure for 18 hours at the required temperature (62°F).
8. Remove specimen from table and strip off mylar sheet. Cure specimen at 158°F (63°F) for 5 hours
9. Allow specimen to cool to the required temperature and cut specimens using using cutting die shown on Figure 1.
10. Proceed as specified in ASTM d638 using 0.2 inch/minute test rating, and 1" gauge length.

**Test: Infrared Curve**

Requirement: Infrared Curve shall be obtained of Components A and B

Test method: Recording Spectrophotometer

**A. Apparatus:**

1. Perkin-Elmer Model 137-B Infracord Spectrophotometer, automatic recording system from 2.5 to 15 microns, with a two-speed recorder. Comparable results can be obtained by other double-beam recording spectrophotometers with similar resolution.
2. Disk holder for a 1"-diameter disk.
3. Two sodium chloride crystal disks, one inch in diameter.
4. Sorvall SS-3 Automatic Superspeed Centrifuge, or a comparable centrifuge, which is able to separate the liquid and solid phases of the epoxy components without previous dilution with solvents.

## B. Procedure:

1. Place about 15 grams of Component A into a stainless centrifuge tube.
2. Counterbalance with Component B in a second centrifuge tube.
3. Centrifuge the two components at 17,000rpm until there is a supernatant liquid layer present in each tube. This takes 20 – 30 minutes.
4. Place a drop of Component A liquid layer on a sodium chloride disk.
5. Place another sodium chloride disk over the drop, rotate and press down until the liquid has flowed into a uniform layer of proper thickness between the two sodium chloride disks.
6. Place the disk in the holder and run an absorption curve with the infrared spectrophotometer.
7. More or less liquid may be used between the disks so as to produce a maximum absorption of 0.7 to 1.0 for the strongest absorption point on the above.
8. Clean disks with toluene and dry.
9. Repeat steps 4 through 8 with the liquid layer from Component B.
10. Record each curve in order that they may be used for comparison purposed to lots of material delivered to the job site.

## **ITEM #0602910A – DRILLING HOLES AND GROUTING DOWELS**

**Description:** Work under this item shall consist of drilling holes in concrete and grouting dowels at the locations shown on the plans, in accordance with the plans, the manufacturer's recommendations, and as directed by the Engineer.

**Materials:** The adhesive bonding material shall be a resin compound specially formulated for steel bars in holes drilled into concrete for the purpose of resisting tension pull-out. The adhesive bonding materials shall be selected from the Connecticut Department of Transportation Approved Product List.

Materials Certificate and a Certified Test Report shall be required for the adhesive bonding material in accordance with Article 1.06.07, certifying the conformance of this material to the requirements stated herein.

**Construction Methods:** The Contractor shall drill holes into the concrete to the depth and at the locations shown on the plans.

The Contractor shall submit the following to the Engineer for approval: type of drill, diameter of bit, method of cleaning holes and methods of placement of the adhesive bonding material. Specifications and recommendations for the aforementioned may be obtained from the manufacturer of the adhesive bonding material. The mass of the drill shall not exceed 20 lbs.

Rebar shall be able to develop a pullout resistance of 90 percent of their nominal yield strengths when bonded at the embedment depths provided.

The Contractor shall provide the minimum cover for rebar as shown on the plans.

If the existing reinforcing steel is encountered during drilling, the holes may be relocated only if approved by the Engineer.

Drilling methods shall not cause spalling, cracking, or other damage to the concrete. Those areas damaged by the Contractor shall be repaired by the Contractor in a manner suitable to the Engineer and at no expense to the State.

The Contractor shall take necessary precautions to prevent any materials from falling onto the roadway or other areas below.

**Method of Measurement:** This work will be measured for payment by the actual number of dowels grouted into drilled holes each, completed, and accepted.

**Basis of Payment:** This work will be paid for at the contract unit price each for "Drilling Holes and Grouting Dowels", which price shall include drilling and preparing holes, and applying

adhesive bonding material in the hole. It shall also include all material, except dowels, and all equipment, tools and labor incidental thereto.

Note: Dowels will be paid for under the item “Deformed Steel Bars - Galvanized”.

**Pay Item**

Drilling Holes and Grouting Dowels

**Pay Unit**

EA.

## **ITEM #0602911A – DRILLING HOLES AND GROUTING ANCHOR BOLTS**

### **Description:**

This work shall include drilling and grouting of anchor bolts into the existing retaining wall as shown on the plans or as directed by the Engineer.

### **Materials:**

The chemical anchoring material shall be capable of resisting 125% of the yield strength of the anchor rod and shall be approved by the Engineer.

Anchor bolt assemblies shall conform to the requirements of ASTM F1554, Grade 36. All components of the bolt assembly shall be galvanized in accordance with ASTM F2329.

### **Construction Methods:**

The drilling and grouting of the anchor bolts shall be done in accordance with the anchoring material manufacturer's recommendations. The actual depth of the hole required varies between products but may not be less than the minimum depth specified on the plans. The minimum anchor embedment provided in the contract document is based on the depth required to prevent failure of the existing concrete, not the requirements of the anchoring material.

A pachometer shall be used to locate rebar. If reinforcing bars are encountered during the drilling operation, the hole shall be relocated as shown on the plans or as directed by the Engineer to clear the reinforcing bar(s). Uncompleted holes shall be filled with the anchoring material and finished smooth to the contour of the surrounding concrete surface.

### **Method of Measurement:**

The drilling and grouting of an anchor bolt (rod) will be one unit each.

### **Basis of Payment:**

This work will be paid for at the contract unit price per each "Drilling Holes and Grouting Anchor Bolts" complete in place, which price shall include all material, including anchor bolts, equipment, tools and labor incidental thereto.

#### **Pay Item**

Drilling Holes and Grouting Anchor Bolts

#### **Pay Unit**

EA

## **ITEM #0602971A – DEBRIS SHIELD**

**Description:** Work under this item shall consist of the design, installation, maintenance, relocation, dismantling as required and removal as required of a temporary debris shield system as shown on the plans or as directed by the Engineer. The debris shield system shall be any type of adequately designed system, which the Contractor elects to build to satisfy, and which does satisfy, the condition that construction debris and other materials are positively prevented from dropping into the Housatonic River below the work area as indicated on the plans or as directed by the Engineer.

**Materials:** Any material or combination of materials may be used to construct the debris shield system provided they are properly designed for the purpose intended.

**Construction Methods:** The debris shield shall be safely designed and constructed as necessary for proper performance of the work.

It shall be the Contractor's responsibility, as part of this item of work, to design and detail the debris shield to conform to all Federal, State, and Local laws and regulations, as well as the requirements contained in this Specification.

The Contractor shall submit Working Drawings, stamped by a Professional Structural Engineer registered in the State of Connecticut, in accordance with Article 1.05.02, of all proposed debris shielding to the Engineer for review and acceptance prior to installation. The working drawings shall include design and details of the debris shield including all connections, brackets, and fasteners. The furnishing of such plans shall not relieve the Contractor of any part of the responsibility for the safety of the work or for the successful completion of the project.

The debris shields shall be placed and secured against all applicable loads, including wind. If, in the opinion of the Engineer, the shields are not secure, the Contractor shall remove and install them to the satisfaction of the Engineer.

The debris shield shall be installed below any active work area as required on the plans prior to commencing work at that location. While in place, the debris shield shall serve to prevent tools and materials from dropping into the Housatonic River below the work area. Once the work in a particular area has been completed and accepted, the debris shield shall be dismantled and/or relocated to facilitate the Contractor's work at other locations. There will be no payment for dismantling and relocating the debris shield system.

Unless otherwise ordered by the Engineer, the debris shield shall be removed upon completion of the work for which it was provided. The removal shall not result in damage to any permanent construction (new or existing) or to adjoining property. If any damage does occur it shall be repaired by the Contractor to the satisfaction of the Engineer at no additional expense to the State.

**Method of Measurement:** This item, being paid for on a lump sum basis, will not be measured for payment.

**Basis of Payment:** This work will be paid for at the contract lump sum price for "Debris Shield", which price shall include designing, installing, maintaining, relocating, dismantling as required, relocating as required, and removing, the temporary debris shield system, and all equipment, tools, and labor incidental thereto.

**Pay Item**  
Debris Shield

**Pay Unit**  
L.S.

## **ITEM #0603726A - EMBEDDED GALVANIC ANODES**

**Description:** This item includes furnishing all labor, tools, materials, equipment and services necessary to install embedded galvanic anodes within areas of concrete repair or in other locations as shown on the plans.

**Materials:** The galvanic anodes shall have a cast zinc core meeting the requirements of ASTM B418 Type II (Z13000) and shall be one of the following:

1. Vector Corrosion Technologies, Inc.  
Galvashield XP4  
8413 Laurel Fair Circle, Suite 200A  
Tampa, FL 33610  
Tel: (813) 830-7566  
Website: [www.vector-corrosion.com](http://www.vector-corrosion.com)
2. Sika Corporation  
Sika FerroGard - 675  
201 Polito Avenue  
Lyndurst, NJ 07071  
Tel: (800)-933-7452  
Website: [www.sikaconstruction.com](http://www.sikaconstruction.com)
3. BASF Corporation  
Master Builders Solutions – MASTERPROTECT 8160CP  
889 Valley Park Drive  
Shakopee, MN 55379  
Tel: (800)-243-6739  
Website: [www.basf.com](http://www.basf.com)
4. Euclid Chemical Company  
Sentinel Gold  
19215 Redwood Road  
Cleveland, OH 44110  
Tel: (800)-321-7628  
Website: [www.euclidchemical.com](http://www.euclidchemical.com)

A Materials Certificate shall be submitted to the Engineer in accordance with 1.06.07 that certifies the anode as one of the listed products above.

**Construction Methods:****Submittals:**

The following information shall be submitted to the Engineer:

- The Manufacturer and product name, written instructions, including Manufacturer limitations on time during which anodes may be submersed in water as the substrate of the repair area is saturated.
- NACE CP2 Cathodic Protection Technician Certification of the Qualified Technical Representative (QTR). The Qualified Technical Representative supplied by the anode manufacturer shall hold and maintain such certification throughout the project.

**Installation:**

A minimum of two (2) weeks in advance of the scheduled installation of the anodes, the Contractor shall arrange for a Qualified Technical Representative (QTR) to train the employees of the Contractor and Department. The QTR shall review the plans and tailor the training to address specific details of the project. Training shall also include inspection procedures to detect different reinforcing bar configurations, installation procedures, quality control procedures, and documentation. The QTR shall be present to provide direction until the Contractor becomes proficient in the work to the satisfaction of the Engineer. The QTR shall also be available for consultation at such additional times during the work as requested by the Engineer.

In addition to the Contract documents, the work for this item shall be performed as directed by the Engineer, in accordance with the Manufacturer's recommendations and written instructions, and recommendations of the QTR.

Should the Engineer determine that the reinforcing steel size and spacing differs from the expected reinforcing layout, the Engineer will direct the Contractor regarding placement of anodes. The actual reinforcing bar density may be obtained by entering the bar size and spacing in the "Table of Reinforcing Steel Density Ratios" in the Appendix. Anode spacing shall not exceed that shown in the Appendix. Any spacing deviations shall allow for sufficient clearance around the anodes to allow concrete to encase the anode and be properly consolidated.

Reinforcing steel shall be clean and securely fastened together with tie wires to provide electrical connectivity. The Contractor shall secure the galvanic anodes to the reinforcing bars along the edge of the repair as shown on the plans, using the anode tie wires. The tie wires shall be wrapped around the cleaned reinforcing steel and twisted tightly to allow little or no free movement and to allow concrete to encase the anode. The Contractor shall place the anodes along a single bar or at the intersection between two bars. In addition, the Contractor shall place the anodes to provide two (2) inches of cover between the proposed form and the anodes. *[Note: this is to prevent the finished patch from sounding hollow when hammer-tapped.]* If less cover will result due to shallow bar location, additional localized removal of concrete may be required to place the anode behind the bar.

The Contractor shall test the connections between anodes and reinforcing steel for electrical continuity, as instructed by the QTR. The Contractor shall place additional tie wires or re-tie connections as directed to provide the specified continuity. The Contractor's testing shall:

- Confirm electrical connection between anode tie wire and reinforcing steel by measuring DC resistance in ohms ( $\Omega$ ) or potential (mV). Electrical connection is acceptable if the DC resistance measured is less than 1  $\Omega$  or the DC potential is less than 1 mV.
- Confirm electrical continuity of the exposed reinforcing steel within the repair area. Electrical continuity between test areas is acceptable if the DC resistance is less than 1  $\Omega$  or the potential is less than 1 mV.

The Contractor shall install anodes and concrete following preparation and cleaning of the steel reinforcement to ensure proper connectivity of the anodes. If significant surface rust forms before the concrete is placed, the bar must be re-cleaned and the anode-to-steel and bar-to-bar connectivity shall be re-verified and corrected as necessary.

Once anodes are installed, precautions shall be taken to prevent water from soaking the anodes prior to concrete placement. The substrate shall be saturated immediately prior to concrete placement, however, the anodes shall not be immersed longer than recommended by the Manufacturer.

**Method of Measurement:** This work will be measured for payment by the number of anodes installed and accepted.

**Basis of Payment:** This work will be paid for at the Contract unit price each for "Embedded Galvanic Anodes," complete and accepted in place, which price shall include all applicable materials, equipment, tools, and labor incidental thereto. All services of a QTR, and testing of installed anodes are included in the Contract unit price.

The concrete and concrete removal will be paid under a separate item(s).

Pay Item	Pay Unit
Embedded Galvanic Anodes	ea.

## **APPENDIX TO ITEM #0603726A – EMBEDDED GALVANIC ANODES**

<b>MAXIMUM ANODE SPACING</b> Based on 160g Zinc Mass	
Steel Density Ratio	Maximum Anode Spacing (Inches)
< 0.31	24
0.31 - 0.60	20
0.61 - 0.90	16
0.91 - 1.20	14
1.21 - 1.50	10
1.51 - 1.80	8
1.81 - 2.10	6

Enter the left column in the table above with the Steel Density Ratio from TABLE OF REINFORCING STEEL DENSITY RATIOS below. Select the maximum anode spacing in the right column in the table above.

**TABLE OF REINFORCING STEEL DENSITY RATIOS**

Bar Size		5				6				7				8				9			
(#)	Spacing (inches)	6	9	12	18	6	9	12	18	6	9	12	18	6	9	12	18	6	9	12	18
5	6	0.65	0.55	0.49	0.44	0.72	0.59	0.52	0.46	0.79	0.63	0.56	0.48	0.85	0.68	0.59	0.50	0.92	0.72	0.62	0.52
	9	0.55	0.44	0.38	0.33	0.61	0.48	0.41	0.35	0.68	0.52	0.45	0.37	0.74	0.57	0.48	0.39	0.81	0.61	0.51	0.41
	12	0.49	0.38	0.33	0.27	0.56	0.43	0.36	0.29	0.62	0.47	0.39	0.32	0.69	0.51	0.43	0.34	0.75	0.56	0.46	0.36
	18	0.44	0.33	0.27	0.22	0.50	0.37	0.31	0.24	0.57	0.41	0.34	0.26	0.63	0.46	0.37	0.28	0.70	0.50	0.40	0.31
6	6	0.72	0.61	0.56	0.50	0.79	0.65	0.59	0.52	0.85	0.70	0.62	0.55	0.92	0.74	0.65	0.57	0.98	0.79	0.69	0.59
	9	0.59	0.48	0.43	0.37	0.65	0.52	0.46	0.39	0.72	0.57	0.49	0.41	0.79	0.61	0.52	0.44	0.85	0.65	0.56	0.46
	12	0.52	0.41	0.36	0.31	0.59	0.46	0.39	0.33	0.65	0.50	0.43	0.35	0.72	0.55	0.46	0.37	0.79	0.59	0.49	0.39
	18	0.46	0.35	0.29	0.24	0.52	0.39	0.33	0.26	0.59	0.44	0.36	0.28	0.65	0.48	0.39	0.31	0.72	0.52	0.43	0.33
7	6	0.79	0.68	0.62	0.57	0.85	0.72	0.65	0.59	0.92	0.76	0.69	0.61	0.98	0.81	0.72	0.63	1.05	0.85	0.75	0.65
	9	0.63	0.52	0.47	0.41	0.70	0.57	0.50	0.44	0.76	0.61	0.53	0.46	0.83	0.65	0.57	0.48	0.89	0.70	0.60	0.50
	12	0.56	0.45	0.39	0.34	0.62	0.49	0.43	0.36	0.69	0.53	0.46	0.38	0.75	0.58	0.49	0.40	0.82	0.62	0.52	0.43
	18	0.48	0.37	0.32	0.26	0.55	0.41	0.35	0.28	0.61	0.46	0.38	0.31	0.68	0.50	0.41	0.33	0.74	0.55	0.45	0.35
8	6	0.85	0.74	0.69	0.63	0.92	0.79	0.72	0.65	0.98	0.83	0.75	0.68	1.05	0.87	0.79	0.70	1.11	0.92	0.82	0.72
	9	0.68	0.57	0.51	0.46	0.74	0.61	0.55	0.48	0.81	0.65	0.58	0.50	0.87	0.70	0.61	0.52	0.94	0.74	0.64	0.55
	12	0.59	0.48	0.43	0.37	0.65	0.52	0.46	0.39	0.72	0.57	0.49	0.41	0.79	0.61	0.52	0.44	0.85	0.65	0.56	0.46
	18	0.50	0.39	0.34	0.28	0.57	0.44	0.37	0.31	0.63	0.48	0.40	0.33	0.70	0.52	0.44	0.35	0.76	0.57	0.47	0.37
9	6	0.92	0.81	0.75	0.70	0.98	0.85	0.79	0.72	1.05	0.89	0.82	0.74	1.11	0.94	0.85	0.76	1.18	0.98	0.88	0.79
	9	0.72	0.61	0.56	0.50	0.79	0.65	0.59	0.52	0.85	0.70	0.62	0.55	0.92	0.74	0.65	0.57	0.98	0.79	0.69	0.59
	12	0.62	0.51	0.46	0.40	0.69	0.56	0.49	0.43	0.75	0.60	0.52	0.45	0.82	0.64	0.56	0.47	0.88	0.69	0.59	0.49
	18	0.52	0.41	0.36	0.31	0.59	0.46	0.39	0.33	0.65	0.50	0.43	0.35	0.72	0.55	0.46	0.37	0.79	0.59	0.49	0.39

How to use the Table of Reinforcing Steel Density Ratios:

1. Enter the table with the first bar size and spacing in the top two rows. Identify that column.
2. Enter the bar size and spacing in the transverse direction in the first two columns. Identify that row.
3. Follow the identified column and row to their intersection and read the reinforcing steel density in that cell.
4. Enter the Maximum Anode Spacing Table with the Reinforcing Steel Density to select the maximum anode spacing.

**ITEM #0606001A – CEMENT RUBBLE MASONRY**

Work under this item shall conform to the requirements of Section 6.06 amended as follows:

**Article 6.06.01 - Description:** Add the following:

This item shall consist of repairing the existing south wingwalls, after removal of the existing 8” Eversource gas main and the existing (2) 4” Altice and Comcast ducts penetrating the walls with approved fieldstone and other incidental construction as required. The fieldstone shall closely match the stone used in the existing walls in color, surface finish, and appearance.

**Pay Item**

Cement Rubble Masonry

**Pay Unit**

CY

## **ITEM #0707009A - MEMBRANE WATERPROOFING (COLD LIQUID ELASTOMERIC)**

**Description:** Work under this item consists of furnishing and installing a seamless elastomeric waterproofing membrane system applied to a concrete or steel surface as shown on the plans, in accordance with this specification and as directed by the Engineer. Work shall also include conditioning of the surface to be coated and all quality-control testing noted herein.

The completed membrane system shall be comprised of a primer coat, two layers of the membrane coating (minimum total thickness of 80 mil and maximum total thickness not to exceed 120 mil), an additional 40 mil membrane layer with aggregate broadcast into the material while still wet, reinforcing material at deck panel joints and two applications of asphalt emulsion (tack coat) at a rate of 0.05-0.07 gal/s.y. each, allowing the first application to break prior to applying the second.

**Materials:** The Contractor shall select a waterproofing membrane system from the Department's current Qualified Product List (QPL) for Spray-Applied Membrane Waterproofing System. All materials incorporated in the works shall meet the Manufacturer's specification for the chosen system. The Engineer will reject any system that is not on the QPL.

Reinforcing material shall be as recommended by the manufacturer.

**Materials Certificate:** The Contractor shall submit to the Engineer a Materials Certificate for the primer, membrane and aggregate in accordance with the requirements of Article 1.06.07.

**Construction Methods:** At least 30 days prior to installation of the membrane system, the Contractor shall submit to the Engineer a Site-specific Installation Plan that includes the manufacturer's recommended procedure for preparing the deck surface, pre-treatment or preparing at cracks and gaps, treatment at curbs, vertical surfaces or discontinuities, applying the primer and membrane, placing of aggregated coat and all Quality Control (QC Plan) testing operations to be performed during the membrane system's installation. Procedures shall also include recommended repairs of system non-compliant issues identified during application. The system shall be applied to the prepared area(s) as defined or shown in the plans, strictly in accordance with the Installation Plan.

A technical representative, in the direct employ of the manufacturer, shall be present on-Site immediately prior to and during application of the membrane. The representative shall inspect and approve the surface prior to priming, and provide guidance on the handling, mixing and addition of components and observe application of the primer and membrane. The technical representative shall perform all required QC testing and remain on the Project site until the membrane has fully cured.

All QC testing, including verbal direction or observations at the time of installation, shall be recorded and submitted to the Engineer for inclusion in the Project records. The QC testing data

shall be received by the Department's project personnel prior to any paving over the finished membrane, or within 24 hours following completion of any staged portion of the work.

1. **Applicator Approval:** The Contractor's membrane Applicator shall be fully trained and licensed by the membrane manufacturer and shall have successfully completed at least three spray membrane projects in the past five years. The Contractor shall furnish references from those projects, including names of contact persons and the names, addresses and phone numbers of persons who supervised the projects. This information shall be submitted to the Engineer prior to the submittal of the Installation Plan. The Engineer shall have sole authority to determine the adequacy and compliance of the submitted information. Inadequate proof of ability to perform the work will be grounds to reject proposed applicators.

2. **Job Conditions:**

- (a) **Environmental Requirements:** Air and substrate temperatures shall be between 32°F and 104°F and the substrate shall be above the dew point. Outside of this range, the Manufacturer shall be consulted.

The Applicator shall be provided with adequate disposal facilities for nonhazardous waste generated during installation of the membrane system. The applicator shall follow safety instructions regarding respirators and safety equipment.

- (b) **Safety Requirements:** All open flames and spark producing equipment shall be removed from the work area prior to commencement of application.

"No Smoking" signs shall be visibly posted at the Site during application of the membrane waterproofing.

Personnel not involved in membrane application shall be kept out of the work area.

3. **Delivery, Storage and Handling:**

- (a) **Packaging and Shipping:** All components of the membrane system shall be delivered to the Site in the Manufacturer's packaging, clearly identified with the product type and batch number.
  - (b) **Storage and Protection:** The Applicator shall be provided with a storage area for all components. The area shall be cool, dry and out of direct sunlight and shall be in accordance with the Manufacturer's recommendations and relevant health and safety regulations.

Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on Site for review by the Engineer or other personnel.

- (c) Shelf Life - Membrane Components: Packaging of all membrane components shall include a shelf life date sealed by the Manufacturer. No membrane components whose shelf life has expired shall be used.

#### 4. Surface Preparation:

- (a) Protection: The Applicator shall be responsible for the protection of equipment and adjacent areas from over spray or other contamination. Parapets and bridge joints shall be masked prior to application of the materials.
- (b) Surface Preparation: Sharp peaks and discontinuities shall be ground smooth. Any peak greater than ¼ inch above the surface profile of the prepared substrate shall be ground to the surrounding elevation. Any valley or minor surface deterioration of ½ inch or greater shall also be repaired. The extent and location of surface patches require the approval of the Engineer before the membrane system is applied.

Surfaces shall be free of oil, grease, curing compounds, loose particles, moss, algae, growth, laitance, friable matter, dirt, bituminous products, and previous waterproofing materials. If required, degreasing shall be done by detergent washing in accordance with ASTM D4258.

The surface shall be abrasively cleaned, in accordance with ASTM D4259, to provide a sound substrate free from laitance.

Voids, honeycombed areas, and blow holes on vertical surfaces shall be repaired as indicated in the Installation Plan.

All steel components to receive membrane waterproofing shall be blast cleaned in accordance with SSPC SP6 and shall be coated with the membrane waterproofing system within the same work shift.

#### 5. Inspection and Testing: Prior to priming of the surface, the Engineer, Applicator and Manufacturer's technical representative shall inspect and approve the prepared substrate.

- (a) Random tests for deck moisture content shall be conducted on the substrate by the Contractor at the Site using a "Sovereign Portable Electronic Moisture Master Meter," a "Tramex CMEXpertII Concrete Moisture Meter" or approved equal. The minimum frequency shall be one test per 1000 s.f. but not less than three tests per shift for each contiguous section worked on during that shift. Additional tests may be required if atmospheric conditions change and retesting of the substrate moisture content is warranted.

The membrane system shall not be installed on substrate with a moisture content greater than 6%, or at a moisture content above the amount recommended by the system's Manufacturer, whichever is less.

- (b) Random tests for adequate tensile bond strength shall be conducted by the Contractor on the substrate using an adhesion tester in accordance with the requirements of ASTM D4541. The minimum frequency shall be one test per 5,000 s.f. but not less than three adhesion tests per shift for each contiguous section worked on during that shift. The locations of the pull tests shall be at least a distance from each other equal to or greater than 1/3 of the width or length (whichever is greater) of the area being worked in that section. The location of the pull tests shall be located in accordance with ASTM D3665 or a statistically-based procedure of stratified random sampling approved by the Engineer.

Adequate surface preparation will be indicated by tensile bond strengths of primer to the substrate greater than or equal to 150 psi or failure in a concrete surface and greater than or equal to 300 psi for steel surfaces.

If the tensile bond strength is lower than the minimum specified, the Engineer may request additional substrate preparation. Any primer not adequately applied shall be removed and new primer applied at the Contractor's expense, as directed by Engineer.

- (c) Grouted joints, materials that the membrane cannot bond to, and cracks or discontinuities that cannot be bridged over by the membrane material shall be covered by a reinforcing material recommended by the membrane system's Manufacturer prior to application of membrane layers as approved or directed by the Engineer.

## 6. Application:

- (a) The System shall be applied in the following distinct steps as follows:
  - 1) Substrate preparation
  - 2) Priming
  - 3) Reinforcing material application over grouted joints, cracks, etc.
  - 4) Membrane application (minimum 2 layers)
  - 5) Membrane with aggregate
- (b) Immediately prior to the application of any components of the System, the surface shall be adequately dry (see Section 5(a) of this specification) and any remaining dust or loose particles shall be removed using clean, dry, oil-free compressed air or industrial vacuum.
- (c) Where the area to be treated is bound by a vertical surface (e.g. curb or wall), the membrane system shall be continued up the vertical, if shown on the plans or directed by the Engineer.
- (d) The handling, mixing and addition of components shall be performed in a safe manner to achieve the desired results, in accordance with the Manufacturer's recommendations or as approved or directed by the Engineer.

- (e) A neat finish with well defined boundaries and straight edges shall be provided by the Applicator.
- (f) Primer: The primer shall consist of one coat with an overall coverage rate of 125 to 175 s.f./gal unless otherwise recommended in the Manufacturer's written instructions.

All components shall be measured and mixed in accordance with the Manufacturer's recommendations.

The primer shall be spray applied using a single component spray system approved for use by the Manufacturer. If required by Site conditions and allowed by the manufacturer brush, squeegee or roller application will be allowed.

The primer shall be allowed to cure tack-free for a minimum of 30 minutes or as required by the Manufacturer's instructions, whichever time is greater, prior to application of the first lift of waterproofing membrane.

Porous concrete (brick) may require a second coat of primer should the first coat be absorbed.

- (g) Membrane and Reinforcing Material: Application of the membrane on the primed surface shall not commence until the primer is cured as described in Section 6(f) of this specification and the adhesion pull tests are completed in accordance with Section 5(b) of this specification.

The waterproofing membrane shall consist of two coats for a total dry film thickness of a minimum 80 mils but not to exceed 120 mils. Adjacent coats shall be of a contrasting color to aid in Quality Assurance and inspection. Any reinforcing material shall be applied immediately before the first coat of membrane in accordance with the Manufacturer's recommendations.

The membrane shall be comprised of Components A and B and a hardener powder which is to be added to Component B in accordance with the Manufacturer's recommendations.

The substrate shall be coated in a methodical manner.

Thickness checks: For each layer, checks for wet film thickness using a gauge pin or standard comb-type thickness gauge shall be carried out once every 100 s.f. Where rapid set time of the membrane does not allow for wet film thickness checks, ultrasonic testing (steel surfaces only), calibrated point-penetrating (destructive) testing, in-situ sampling (cutout of small sections for measuring thicknesses), or other methods approved by the Engineer shall be employed for determination of dry film

thickness. The measured thickness of each and every individual test of the membrane shall be greater than or equal to the required thickness.

**Bond Strength:** Random tests for adequate tensile bond strength shall be conducted on the membrane in accordance with the requirements of ASTM D4541. The minimum test frequency shall be one test per 5,000 s.f. but no less than three adhesion tests per bridge. Adequate adhesion will be indicated by tensile bond strengths of the membrane to the substrate of greater than or equal to 150 psi or failure in a concrete surface, and greater than or equal to 300 psi for steel surfaces.

Repair the membrane system following destructive testing and correct any deficiencies in the membrane system or substrate noted during QC testing in accordance with the Manufacturer's recommendations to the satisfaction of the Engineer at no additional cost to the State.

- (h) Repairs: If an area is left untreated or the membrane becomes damaged, a patch repair shall be carried out to restore the integrity of the system. The damaged areas shall be cut back to sound materials and wiped with solvent (e.g. acetone) up to a width of at least four inches on the periphery, removing any contaminants unless otherwise recommended by the Manufacturer. The substrate shall be primed as necessary, followed by the membrane layers. A continuous layer shall be obtained over the substrate with a four-inch overlap onto existing membrane.

Where the membrane is to be joined to existing cured material, the new application shall overlap the existing by at least four inches. Cleaning and surface preparation on areas to be lapped shall be as recommended in the Manufacturer's written instructions.

- (i) Aggregated Finish:
  - 1) Apply an additional 40 mil thick layer of the membrane material immediately followed by an aggregate coating, before the membrane cures, at a rate to fully cover the coated area to a point where no membrane material is visible. The membrane and aggregate shall be fully integrated after the aggregate has been applied and the membrane cured.
  - 2) Localized areas not fully coated shall be touched-up with additional membrane and aggregate as needed.
  - 3) Using motorized mechanical sweepers or a vacuum sweeper apparatus, remove all loose and excess aggregate from the surface to the satisfaction of the Engineer and dispose of properly after application prior to allowing traffic onto finished surface or application of tack coat. Any areas not fully coated after sweeping shall be touched up with additional membrane and aggregate as needed.

7. Final Review: The Engineer and the Applicator shall jointly review the area(s) over which the completed system has been installed. Any irregularities or other criteria that do not meet the requirements of the Engineer shall be addressed at this time.

**Method of Measurement:** This item shall be measured by the number of square yards of waterproofed surface completed and accepted.

**Basis of Payment:** This item will be paid for at the Contract unit price per square yard of “Membrane Waterproofing (Cold Liquid Elastomeric),” complete and accepted in place, which price shall include all surface preparation, furnishing, storing and applying the system, technical representative and Quality Control testing, and any necessary repairs and remediation work as well as all materials, equipment, tools, labor incidental to this work.

Pay Item	Pay Unit
Membrane Waterproofing (Cold Liquid Elastomeric)	s.y.

## **ITEM #0817002A – 6” x 8 1/2” GRANITE STONE CURBING FOR BRIDGES**

Granite stone curbing shall conform to the requirements of Section 8.13, supplemented as follows:

**8.13.01 – Description:** Replace the entire article with the following:

Curbing shall consist of 6” wide by 8 1/2” high with 6” exposed reveal granite stone curbing for bridges, furnished in accordance with the dimensions and details of the plans, and installed to the lines and grades as shown on the plans.

**8.13.03 – Construction Methods:** Replace the entire article with the following:

Installing Granite Stone Curbing: The granite stone curbing shall be set on edge and settled into place to the line and grade required, straight and true for the full depth. A mound of concrete, as shown on the plans, shall be placed at all joints. The joints of the stone curbing shall be pointed with mortar for the full depth of the curbing. At approximately 50-ft intervals, a 1/2-in joint shall not be filled with mortar but left free for expansion. The ends of the stone curbing at driveways and intersections shall be cut at a bevel or rounded, as directed by the Engineer.

**8.13.04 – Method of Measurement:** Replace the entire article with the following:

This work will be measured for payment along the arris line of the curb and will be the actual number of linear feet of granite stone curbing installed and accepted.

**8.13.05 – Basis of Payment:** Replace the entire section with the following:

Payment for this work will be made at the Contract unit price per linear foot for “6” x 8 1/2” Granite Stone Curbing for Bridges”, complete and accepted in place, which price shall include all materials, equipment, tools and labor incidental thereto.

There will be no direct payment for the mortar bed, mortar joint, joint seal, and the work of rounding the ends of the curbing and pointing the joints with mortar, but the cost of this material and work shall be considered as included in the general cost of the work.

Furnishing and installing #5 anchor bar (galvanized) into the granite stone curbing is not included with this item. It will be paid for in accordance with the item “Deformed Steel Bars - Galvanized”.

### **Pay Item**

6” x 8 1/2” Granite Stone Curbing for Bridges

### **Pay Unit**

LF

## **ITEM #0819002A - PENETRATING SEALER PROTECTIVE COMPOUND**

**Description:** Work under this item shall consist of cleaning concrete surfaces of dirt, dust and debris, and furnishing and applying a clear, penetrating sealer where shown on the plans, to provide a hydrophobic barrier against the intrusion of moisture. This work also includes furnishing, installing and removing platforms, scaffolding, ladders and other means of access as well as shields, as required, to protect adjacent areas from overspray. Penetrating sealer shall not be applied to concrete surfaces that have been previously treated with coatings or curing compounds that would hinder penetration of the sealer into the concrete.

**Materials:** The penetrating sealer shall be a single component, 100% silane or silane siloxane from the list of materials below. The material shall be selected in anticipation of the expected ambient and surface temperature at the time of installation.

The following products may be used when ambient and surface temperatures are 40°F and above:

SIL-ACT ATS-100 (Silane)  
Advanced Chemical Technologies, Inc.  
9608 North Robinson Ave.  
Oklahoma City, OK 73114  
405-843-2585  
[www.advchemtech.com](http://www.advchemtech.com)

Armor SX 5000 EXT-100 or SX 5000 WB (Silane Siloxane)  
Foundation Armor, LLC.  
472 Amherst St. STE 14  
Nashua, NH 03063  
866-306-0246  
[www.foundationarmor.com](http://www.foundationarmor.com)

Aquinil Plus 100 (Silane)  
ChemMasters  
300 Edwards Street  
Madison, OH 44057  
440-428-2105, 800-486-7866  
[www.chemmasters.net/Aquanil100.php](http://www.chemmasters.net/Aquanil100.php)

The following product may be used when ambient and surface temperatures are 20°F and above:

Certi-Vex Penseal 244 100% (Silane)  
Vexcon Chemicals  
7240 State Road  
Philadelphia, PA 19135  
888-839-2661  
[www.Vexcon.com](http://www.Vexcon.com)

**Construction Methods:**

Submittals: The Contractor shall submit to the Engineer Safety Data Sheets (SDS) and product literature for the selected product. The literature shall include written instructions how to apply the product to vertical and horizontal surfaces, and where required, overhead surfaces.

The Contractor shall submit to the Engineer, in accordance with Article 1.05.02, written procedures for cleaning the concrete surfaces. The submittal shall include proposed equipment and materials and shall address how adjacent traffic and other areas shall be protected from dust, debris and overspray during the cleaning and application processes. Where the sealer is to be applied to parapets before pavement is placed, the submittal shall address protecting the deck and curb to which membrane waterproofing will be applied. Should the membrane already be present, the submittal shall address protecting the membrane. It shall also indicate how vegetation shall be protected from overspray. The submittal shall address the conditions under which work may proceed, including wind speed, temperature and precipitation. It shall also include procedures to be followed to protect the work should unfavorable weather conditions occur before the product has been absorbed.

The Contractor shall inspect the surfaces to be sealed to identify surface cleaning needs before submitting the procedures. The Contractor shall identify conditions that need repair or surfaces that may require special attention or cleaning procedures. Such observations shall be addressed in the written procedures.

Surface Preparation: Concrete surfaces to which penetrating sealer will be applied shall be dry, clean and free of grease, oil and other surface contaminants. New concrete and newly placed repair concrete shall be allowed to cure for at least 28 days before applying sealer. After rain or water cleaning, allow existing concrete surfaces to dry for at least 8 hours before applying sealer. Dry surfaces may be cleaned by sweeping with brushes or brooms, and blowing clean with oil-free, compressed air. The Contractor shall take care not to damage the concrete surface finish during cleaning operations. Care shall be taken so that cleaning methods do not damage joint sealant or other components of the structure.

Application: Application of the sealer can only begin after the Engineer evaluates the concrete surfaces for cleanliness and moisture, and determines that conditions are appropriate for application.

The sealer shall saturate the concrete surface with a rate of application of 200 square feet per gallon of sealer. The dispersion shall run six to eight inches down a vertical surface from the spray pattern. The maximum run-down is 12 inches. The Contractor shall monitor and record the number of square feet per gallon of sealer used to verify that the required application rate is being met. Additional sealer may be needed if surfaces are porous, rough or textured.

The Engineer will inspect the concrete surface during application and after the sealer has had adequate time to penetrate. As a test, water sprayed from a bottle on the sealed surface shall bead up and not be absorbed. Should water be absorbed into the concrete at a test area, additional areas shall be tested to determine which areas should receive additional application of sealer. The

Contractor shall apply additional sealer to the identified areas until absorption of water is prevented.

**Method of Measurement:** This work will be measured for payment by the actual number of square yards of concrete, coated completely and accepted, within the designated limits. The area will be measured once, regardless of the number of applications required.

**Basis of Payment:** This work will be paid for at the Contract unit price per square yard for “Penetrating Sealer Protective Compound,” complete, which price shall include all equipment tools, labor and materials, incidental thereto, including the preparation of the concrete surfaces and proper disposal of debris.

Pay Item	Pay Unit
Penetrating Sealer Protective Compound	s.y.

**ITEM #0822017A – TEMPORARY PRECAST CONCRETE BARRIER CURB WITH CHAIN LINK FENCE**

**ITEM #0822018A – RELOCATE TEMPORARY PRECAST CONCRETE BARRIER CURB WITH CHAIN LINK FENCE**

Section 8.22 is supplemented as follows:

**8.22.01 – Description:** This item shall consist of furnishing, installing, relocating and removing Temporary Precast Concrete Barrier Curb with Chain Link Fence at the locations and to the dimensions and details shown on the plans, or as directed by the Engineer and in conformance with these specifications.

**8.22.02 – Materials:** Temporary Precast Concrete Barrier Curb materials shall conform to the requirements of Article 8.21.02, except penetrating sealer need not be applied.

Chain Link Fence materials for this work shall conform to the requirements of Article M.10.05.

Fence posts shall be attached perpendicular to the barrier curb top surface. The fence posts shall be securely bolted or drilled and grouted to the concrete barrier curb. The Contractor shall provide shop drawings for the method of attaching the chain link fence to the barrier curb and for the material and methods proposed to close gaps in the chain link fence between barrier curb sections. The final production shop drawings shall be signed by a licensed Professional Engineer registered in the State of Connecticut.

**8.22.04 – Method of Measurement:** Add the following:

This work will be measured for payment by the number of linear feet Temporary Precast Concrete Barrier Curb with Chain Link Fence furnished, installed, and relocated, complete and accepted in place.

**8.22.05 – Basis of Payment:** This work will be paid for at the Contract price per linear foot for “Temporary Precast Concrete Barrier Curb with Chain Link Fence” or “Relocate Temporary Precast Concrete Barrier Curb with Chain Link Fence” complete in place, which price shall include all furnishings, transportation, initial installation, relocation, final removal, storage, materials, reinforcing steel, connecting rods, equipment, tools and labor incidental thereto. Any temporary precast concrete barrier curbs with chain link fence that become lost, damaged or defaced shall be replaced by the contractor at no cost to the State.

Pay Item	Pay Unit
Temporary Precast Concrete Barrier Curb with Chain Link Fence	l.f.
Relocate Temporary Precast Concrete Barrier Curb with Chain Link Fence	l.f.

## **ITEM #0901003A – STEEL BOLLARD**

**Description:** This item shall consist of furnishing and installing a removable steel bollard in a concrete footing, of the size and type specified, at the locations and to the dimensions and details as shown on the plans, or as directed by the engineer, in accordance with these specifications.

### **Bollard Selection:**

1. BOL-OR-40-BK, Removable Ornamental Steel Bollard, manufactured by Vestil, Angola, IN 46703
2. G-Series 150-GSF Twist & Lock Removable Bollard – Padlock, manufactured by J.R. Hoe and Sons, Middlesboro, KY 40965
3. Or approved equal

**Materials:** Material for this work shall meet the following requirements:

Concrete	Article M.03.01
Compacted Granular Fill	Article M.02.01
Steel Post	ASTM A36, Powder-coated black

Finish shall be manufacture's standard, factory-applied finish system with finely textured paint, color black.

**Construction Methods:** Bollards and assembly shall be installed in accordance with manufacturer's specifications.

**Method of Measurement:** This work will be measured for payment by the actual number of steel bollards installed and accepted in place.

Excavation for the installation of the steel bollard, backfilling, disposal of surplus material, granular fill, concrete for encasement, and painting will not be measured for payment; but the cost thereof shall be included in the bid price for the steel bollard.

**Basis of Payment:** This work will be paid for at the contract unit price each for "Steel Bollard", complete in place, which price shall include all excavation, backfill, disposal of surplus material, steel post, painting, concrete encasement, granular fill, and all necessary tools, equipment and labor incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Steel Bollard	ea.

## **ITEM #0901005A – BOLLARD**

**Description:** This item shall consist of furnishing and installing a removable flexible bollard in a concrete footing, of the size and type specified, at the locations and to the dimensions and details as shown on the plans, or as directed by the engineer, in accordance with these specifications.

### **Bollard Selection:**

1. R-8323 Flexible Bollard, Removable, manufactured by Reliance Foundry, Surrey, BC, Canada V3S 7G7
2. R-8303 Flexible Bollard, Heavy Duty Mount, Removable, manufactured by Reliance Foundry, Surrey, BC, Canada V3S 7G7
3. Or approved equal

**Materials:** Material for this work shall meet the following requirements:

Concrete	Article M.03.01
Compacted Granular Fill	Article M.02.01
Post	Polyurethane Plastic w/ Reflective Stripe

Finish shall be manufacture's standard, factory-applied finish system with finely texture paint, color black with white reflective stripe.

**Construction Methods:** Bollards and assembly shall be installed in accordance with manufacturer's specifications.

**Method of Measurement:** This work shall be measured for payment by the actual number of flexible bollards installed and accepted in place.

Excavation for the installation of the flexible bollard, backfilling, disposal of surplus material, granular fill, concrete for encasement, and painting will not be measured for payment; but the cost thereof shall be included in the bid price for the flexible bollard.

**Basis of Payment:** This work will be paid for at the contract unit price each for "Bollard", complete in place, which price shall include all excavation, backfill, disposal of surplus material, flexible post, painting, concrete encasement, granular fill, and all necessary tools, equipment and labor incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Bollard	ea.

## **ITEM #0904500A – METAL BRIDGE RAIL (ORNAMENTAL GRILLE)**

Work under this item shall meet the requirements of Section 9.04 – Metal Bridge Rail, supplemented and amended as follows:

### **Description:**

Work under this item shall consist of fabricating, coating, and installing the decorative metal bridge rail as shown on the plans, as directed by the Engineer and in accordance with these specifications.

### **Materials:**

#### **Metals:**

Steel shall comply with Section M.06. Provide metal free from pitting, seam marks, roller marks, stains, discolorations, and other imperfections where exposed to view on finished units.

Posts: Galvanized square steel tubular members HSS2x2x1/4 conforming to ASTM A123 having a 45,000 psi yield strength and G90 zinc coating, 0.90 oz./ft<sup>2</sup>.

Rails: Galvanized round steel pipe members 2" diameter conforming to ASTM A123 having a 45,000 psi yield strength and G90 zinc coating, 0.90 oz./ft<sup>2</sup>.

Panels: Galvanized solid square steel conforming to ASTM A123 having a 45,000 psi yield strength and G90 zinc coating, 0.90 oz./ft<sup>2</sup>. Size shall be 1/2" square and 3/4" square as depicted on the plans.

Preset Anchorages (for railings placed on new concrete parapets): Wire struts shall be cold-drawn and conform to ASTM 510, Grade 1030 with a min. tensile strength of 100,000 psi. The ferrules shall conform to ASTM 108, Grade 12L14. The wire struts shall be securely welded to the ferrules with the welds capable of developing the tensile strength of the struts. Anchors shall be furnished with plastic plugs. Bolts shall be stainless steel conforming to the requirements of ASTM F593, Group 1 (ANSI 304). Washers shall be stainless steel conforming to the requirements of ASTM A167, Type 302 through 305.

Chemical Anchorages (for railing placed atop existing retaining wall): Chemical anchorage shall develop full capacity of threaded rod and shall be installed per manufactures recommendations. Anchor bolt shall be 3/4" diameter stainless steel threaded rod conforming to ASTM F593 with stainless steel nuts conforming to ASTM F594 and stainless steel washers Type 304.

Ornamental Rail Rosettes: Cast iron, single faced 2 5/8" diameter, manufactured by King Architectural Metals, Item No. 45-9052.

#### **Coating:**

The decorative metal bridge rail shall utilize a duplex coating system of polyester resin over hot-dipped galvanized steel for maximum corrosion protection on all posts, rails, and panels.

All railing sections shall receive a 4-stage "Power Wash" pre-treatment process that cleans and prepares the metal substrate to assure complete adhesion of the powder coated finish.

- a. All metal substrate shall be cleaned, and phosphate treated simultaneously to form an amorphous structure on the metal substrate for superior powder coating adhesion.
- b. All metal substrate shall be given a thorough water rinse to prepare the phosphate coated metal substrate for the seal rinse.
- c. All metal substrate shall be given a non-chromated seal for added corrosion protection and improved adhesion.
- d. All metal substrate shall then be baked dry, prior to the application of the powder coating.

All metal substrate shall be given a polyester resin-based powder coating finish applied by the electrostatic spray process to a minimum thickness of 2.5 mils. The polyester resin finish shall be cured in a 450 degree Fahrenheit environment for 20 minutes.

All finished coating that is damaged during installation shall be repaired at the Contractor's expense prior to final acceptance of the work.

The finished color shall be black.

#### Grout and Anchoring Cement:

Non-shrink, Non-metallic Grout shall be used. It shall be premixed, factory-packaged, non-staining, non-corrosive, non-gaseous grout complying with ASTM C1107. Provide grout specifically recommended for exterior applications.

Erosion-Resistant Anchor Cement shall be used. It shall be factory-packaged, non-shrink, non-staining, hydraulic-controlled expansion cement formulation for mixing with water at Project site to create pourable anchoring, patching, and grouting compound. Provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

#### **Submittals:**

Contractor shall provide shop drawings to the Engineer for review, prior to fabrication of the metal bridge rail. Contractor shall include field measurements for the railing to be installed atop the existing retaining wall. Proposed railing dimensions may vary from those shown on the plans based on the existing wall dimensions. The intent is for the top of railing to be even with the top of railing on the proposed parapet.

**Construction Methods:**

The metal bridge rail shall be installed at the locations shown on the plans. The installed railing must be protected from damage by means of a protective cover during construction and will be removed at the time of substantial completion. It shall be the Contractor's responsibility to restore any finish damaged during installation or construction activities. Any sections of railing that cannot be restored to the Engineer's satisfaction shall be replaced by new sections at no additional cost to the State.

**Method of Measurement:**

This work will be measured for payment by the actual length in linear feet of ornamental metal bridge rail furnished and installed complete in place and accepted by the Engineer.

**Basis of Payment:**

This work will be paid for at the contract unit price, per linear foot, for "Metal Bridge Rail (Ornamental Grille)," complete in place, which price shall include all work associated with the furnishing and installation of the ornamental metal bridge rail (including the ornamental rail rosettes), and all materials, equipment, tools, and labor incidental thereto.

**Pay Item**

Metal Bridge Rail (Ornamental Grille)

**Pay Unit**

L.F.

## **ITEM #0906205A – RESET PICKET FENCE, ORNAMENTAL IRON**

Work under this item shall conform to the requirements of Section 9.06 amended as follows:

### **Article 9.06.01 – Description:** Add the following:

Work under this item shall consist of removing existing picket fence, storing fencing during construction as needed, and reinstalling the fence in its original location after construction in the area is complete, where indicated on the plans or as ordered by the Engineer.

### **Article 9.06.02 – Materials:** Add the following:

If new fencing material is required, it shall be approved by the Engineer.

### **Article 9.06.03 – Construction Methods:** Add the following:

Fencing, noted to be reset, shall be removed in a workmanlike manner, stored during construction as needed, and reset at its original location. If the Engineer determines that the existing fence cannot be properly removed and set due to the existing condition of the fence and the impact of removing and resetting, or if the fence is damaged or stolen when it is either being removed or stored, the Engineer may order the Contractor to install new fence.

### **Article 9.06.04 – Method of Measurement:** Add the following:

Removing and resetting fence will be measured for payment by the number of linear feet of fence removed and reset, complete and accepted, measured from outside to outside of terminal posts.

### **Article 9.06.05 – Basis of Payment:** Add the following:

The work to remove and reset picket fence, ornamental iron will be paid at the contract unit price per linear foot for “Reset Picket Fence, Ornamental Iron” complete in place, which price shall include removal, storage, and resetting the fence in its original location including all material, equipment, tools, and labor incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Reset Picket Fence, Ornamental Iron	L.F.

## **ITEM #0921018A – BRICK PAVING**

### **Description:**

This item shall consist of furnishing and installing Brick Paving to match the existing brick cross walk at the southeast corner of Bridge Street SE and Canal Street on a Processed Aggregate Base and Sand leveling layer to the dimensions and details as shown on the plans or as directed by the Engineer and in accordance with these specifications.

### **Materials:**

Material for this work shall conform to the following requirements:

Brick Paving: The Contractor shall provide samples of the Brick for approval by the Engineer.

Sand: In accordance with Article M.03.01 – 2 for Fine Aggregate

Processed Aggregate Base: In accordance with Article M.03.02.

### **Construction Methods:**

The Contractor shall receive approval on the Brick Paver for size, color and texture prior to the installation. The Paving will be free from excessive chips, cracks, voids, discoloration or other defects that might be visible or cause staining in finished work. The Brick Paving shall be placed to produce uniform blend of colors and textures. The Brick Paving will be cut with motor-driven masonry saw equipment to provide clean, sharp, un-chipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable. If existing brick is available, it may be reused if in good condition to match the new brick installation.

1 – Excavation: Excavation shall be made to required depths below finish grade, as shown necessary to match the existing and proposed grades. Any damage caused to the surrounding features not within the limits of work shall be replaced at the Contractor's expense.

2 – Processed Aggregate Base: The Processed Aggregate shall be uniformly spread upon the compacted subgrade to the require depth and thoroughly compacted in accordance with Article 3.04.03.

3 – Brick Paving: The Brick Paving shall be placed on a sand leveling layer of approximately 1 inch thick to provide a flush joint at the interface with the adjoining pavement, curb and brick crosswalk. The Brick Paving shall be set to the line and grade to achieve the desired finished surface and grade to match the existing brick pattern. The Brick Paving shall be installed hand tight with a maximum joint not to exceed 1/8". After the Brick Paving has been completely laid, sweep joint sand into the joints until full. Lightly fog with water and continue to fill with

sand until no further settlement occurs. Upon completion, the surface shall be swept clean.

### **Method of Measurement**

1 – Brick Paving: This work will be measured by the actual number of square feet of Brick Paving completed and accepted.

2 – Excavation: All excavation required for the installation of the Brick Paving to the lines and grades directed by the plans or as directed by the Engineer, will not be measured for payment. The disposal of surplus material will not be measured for payment, but the cost shall be included in the price bid for the Brick Paving.

3 – Processed Aggregate Base: This work will not be measured for payment but the cost thereof shall be included in the price bid for the Brick Paving.

### **Basis of Payment:**

This work will be paid for at the contract unit price per square feet for “Brick Paving” complete in place, which price shall include all excavation as specified above, backfill, disposal of surplus material, processed aggregate base, edge restraints, and all equipment, tools, labor and materials incidental thereto.

Pay Item	Pay Unit
Brick Paving	s.f.

## **ITEM #0952102A – CONCRETE PLANTER**

**Description:** This item shall consist of furnishing and installing rectangular and circular concrete planters of the size and type specified, at the locations shown on the plans, or as directed by the engineer, in accordance with these specifications.

**Materials:** Material for this work shall conform to the following requirements:

1. Manufactured by: Doty & Sons Concrete Products  
1275 East State Street, Sycamore, Ill. 60178  
info@dotyconcrete.com

Item Number: WP482424

Size: 48" long x 24" wide x 24" high

Weight: 1,050 pounds

Material: Concrete

Finish: Standard Sandblast SB6

Sealer: Non-Gloss (ACR2)

Or Approved Equal

2. Manufactured by: Doty & Sons Concrete Products  
1275 East State Street, Sycamore, Ill. 60178  
info@dotyconcrete.com

Item Number: WP3024

Size: 30" diameter x 24" high

Weight: 538 pounds

Material: Concrete

Finish: Standard Sandblast SB6

Sealer: Non-Gloss (ACR2)

Or Approved Equal.

The rectangular and circular concrete planters shall be furnished complete with finish and sealer applied by the manufacturer at the plant.

**Construction Methods:** Install Concrete Planters at locations shown on the plans.

**Method of Measurement:** This item, being paid for on a lump sum basis, will not be measured for payment.

**Basis of Payment:** This work will be paid for at the contract lump sum price for "Concrete Planter", complete in place, and all necessary tools, equipment and labor incidental thereto.

Pay Item  
Concrete Planter

Pay Unit  
LS

## **ITEM #0969062A - CONSTRUCTION FIELD OFFICE, MEDIUM**

**Description:** Under the item included in the bid document, adequate weatherproof office quarters with related furnishings, materials, equipment and other services, shall be provided by the Contractor for the duration of the work, and if necessary, for a close-out period determined by the Engineer. The office, furnishings, materials, equipment, and services are for the exclusive use of CTDOT forces and others who may be engaged to augment CTDOT forces with relation to the Contract. The office quarters shall be located convenient to the work site and installed in accordance with Article 1.08.02. This office shall be separated from any office occupied by the Contractor. Ownership and liability of the office quarters shall remain with the Contractor.

**Furnishings/Materials/Supplies/Equipment:** All furnishings, materials, equipment and supplies shall be in like new condition for the purpose intended and require approval of the Engineer.

**Office Requirements:** The Contractor shall furnish the office quarters and equipment as described below:

Description \ Office Size	Med.
Minimum Sq. Ft. of floor space with a minimum ceiling height of 7 ft.	400
Minimum number of exterior entrances.	2
Minimum number of parking spaces.	7

**Office Layout:** The office shall have a minimum square footage as indicated in the table above, and shall be partitioned as shown on the building floor plan as provided by the Engineer.

**Tie-downs and Skirting:** Modular offices shall be tied-down and fully skirted to ground level.

**Lavatory Facilities:** For field offices sizes Small and Medium the Contractor shall furnish a toilet facility at a location convenient to the field office for use by CTDOT personnel and such assistants as they may engage; and for field offices sizes Large and Extra Large the Contractor shall furnish two (2) separate lavatories with toilet (men and women), in separately enclosed rooms that are properly ventilated and comply with applicable sanitary codes. Each lavatory shall have hot and cold running water and flush-type toilets. For all facilities the Contractor shall supply lavatory and sanitary supplies as required.

**Windows and Entrances:** The windows shall be of a type that will open and close conveniently, shall be sufficient in number and size to provide adequate light and ventilation, and shall be fitted with locking devices, blinds and screens. The entrances shall be secure, screened, and fitted with a lock for which four keys shall be furnished. All keys to the construction field office shall be furnished to the CTDOT and will be kept in their possession while State personnel are using the office. Any access to the entrance ways shall meet applicable building codes, with appropriate handrails. Stairways shall be ADA/ABA compliant and have non-skid tread surfaces. An ADA/ABA compliant ramp with non-skid surface shall be provided with the Extra-Large field office.

Lighting: The Contractor shall equip the office interior with electric lighting that provides a minimum illumination level of 100 foot-candles at desk level height, and electric outlets for each desk and drafting table. The Contractor shall also provide exterior lighting that provides a minimum illumination level of 2 foot-candles throughout the parking area and for a minimum distance of 10 ft. on each side of the field office.

Parking Facility: The Contractor shall provide a parking area, adjacent to the field office, of sufficient size to accommodate the number of vehicles indicated in the table above. If a paved parking area is not readily available, the Contractor shall construct a parking area and driveway consisting of a minimum of 6 inches of processed aggregate base graded to drain. The base material will be extended to the office entrance.

Field Office Security: Physical Barrier Devices - This shall consist of physical means to prevent entry, such as: 1) All windows shall be barred or security screens installed; 2) All field office doors shall be equipped with dead bolt locks and regular day operated door locks; and 3) Other devices as directed by the Engineer to suit existing conditions.

Electric Service: The field office shall be equipped with an electric service panel, wiring, outlets, etc., to serve the electrical requirements of the field office, including: lighting, general outlets, computer outlets, calculators etc., and meet the following minimum specifications:

- A. 120/240 volt, 1 phase, 3 wire
- B. Ampacity necessary to serve all equipment. Service shall be a minimum 100 amp dedicated to the construction field office.
- C. The electrical panel shall include a main circuit breaker and branch circuit breakers of the size and quantity required.
- D. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed at each desk and personal computer table (workstation) location.
- E. Additional 120 volt, single phase, 20 amp, isolated ground dedicated power circuit with dual NEMA 5-20 receptacles will be installed, for use by the Telephone Company.
- F. Additional 120-volt circuits and duplex outlets as required meeting National Electric Code requirements.
- G. One exterior (outside) wall mounted GFI receptacle, duplex, isolated ground, 120 volt, straight blade.
- H. After work is complete and prior to energizing, the State's CTDOT electrical inspector, must be contacted at 860-594-2240. (Do Not Call Local Town Officials)
- I. Prior to field office removal, the CTDOT Office of Information Systems (CTDOT OIS) must be notified to deactivate the communications equipment.

Heating, Ventilation and Air Conditioning (HVAC): The field office shall be equipped with sufficient heating, air conditioning and ventilation equipment to maintain a temperature range of 68°-80° Fahrenheit within the field office.

Telephone Service: The Contractor shall provide telephone service with unlimited nation-wide calling plan. For a Small, Medium and Large field office this shall consist of the installation of two (2) telephone lines: one (1) line for phone/voice service and one (1) line dedicated for the facsimile machine. For an Extra-Large field office this shall consist of four (4) telephone lines: three (3) lines for phone/voice service and one (1) line dedicated for facsimile machine. The Contractor shall pay all charges.

Data Communications Facility Wiring: Contractor shall install a Category 6 568B patch panel in a central wiring location and Cat 6 cable from the patch panel to each PC station, Smart Board location, Multifunction Laser Printer/Copier/Scanner/Fax, terminating in a (Category 6 568B) wall or surface mount data jack. The central wiring location shall also house either the data circuit with appropriate power requirements or a category 5 cable run to the location of the installed data circuit. The central wiring location will be determined by the CTDOT OIS staff in coordination with the designated field office personnel as soon as the facility is in place.

For Small, Medium and Large field offices the Contractor shall run a CAT 6 LAN cable a minimum length of 25 feet for each CTDOT networked device (including but not limited to: smartboards and Multi-Function Laser Printer/Copier/Scanner/Fax) to LAN switch area leaving an additional 10 feet of cable length on each side with terminated RJ45 connectors. For an Extra-Large field office the Contractor shall run CAT 6 LAN cables from workstations, install patch panel in data circuit demark area and terminate runs with RJ45 jacks at each device location. Terminate runs to patch panel in LAN switch area. Each run / jack shall be clearly labeled with an identifying Jack Number.

The Contractor shall supply cables to connect the Wi-Fi printer to the Contractor supplied internet router and to workstations/devices as needed. These cables shall be separate from the LAN cables and data Jacks detailed above for the CTDOT network.

The number of networked devices anticipated shall be at least equal to the number of personal computer tables, Multi-Function Laser Printer/Copier/Scanner/Fax, and smartboards listed below.

The installation of a data communication circuit between the field office and the CTDOT OIS in Newtonington will be coordinated between the CTDOT District staff, CTDOT OIS staff and the local utility company once the Contractor supplies the field office phone numbers and anticipated installation date. The Contractor shall provide the field office telephone number(s) to the CTDOT Project Engineer within 10 calendar days after the signing of the Contract as required by Article 1.08.02. This is required to facilitate data line and computer installations.

Additional Equipment, Facilities and Services: The Contractor shall provide at the field Office at least the following to the satisfaction of the Engineer:

Furnishing Description	Office Size
	Med.
	Quantity
Office desk (2.5 ft. x 5 ft.) with drawers, locks, and matching desk chair that have pneumatic seat height adjustment and dual wheel casters on the base.	3
Standard secretarial type desk and matching desk chair that has pneumatic seat height adjustment and dual wheel casters on the base.	-
Personal computer tables (4 ft. x 2.5 ft.).	3
Drafting type tables (3 ft. x 6 ft.) and supported by wall brackets and legs; and matching drafters stool that have pneumatic seat height adjustment, seat back and dual wheel casters on the base.	1
Conference table, 3 ft. x 12 ft.	-
Table – 3 ft. x 6 ft.	-
Office Chairs.	4
Mail slot bin – legal size.	-
Non-fire resistant cabinet.	-
Fire resistant cabinet (legal size/4 drawer), locking.	1
Storage racks to hold 3 ft. x 5 ft. display charts.	-
Vertical plan racks for 2 sets of 2 ft. x 3 ft. plans for each rack.	1
Double door supply cabinet with 4 shelves and a lock – 6 ft. x 4 ft.	-
Case of cardboard banker boxes (Min 10 boxes/case)	1
Open bookcase – 3 shelves – 3 ft. long.	-
White Dry-Erase Board, 36" x 48" min. with markers and eraser.	1
Interior partitions – 6 ft. x 6 ft., soundproof type, portable and freestanding.	-
Coat rack with 20 coat capacity.	-
Wastebaskets - 30 gal., including plastic waste bags.	1
Wastebaskets - 5 gal., including plastic waste bags.	3
Electric wall clock.	-
Telephone.	1
Full size stapler 20 (sheet capacity, with staples)	2
Desktop tape dispensers (with Tape)	2
8 Outlet Power Strip with Surge Protection	4
Rain Gauge	1
Business telephone system for three lines with ten handsets, intercom capability, and one speaker phone for conference table.	-
Mini refrigerator - 3.2 c.f. min.	1
Hot and cold water dispensing unit. Disposable cups and bottled water shall be supplied by the Contractor for the duration of the project.	1

Microwave, 1.2 c.f. , 1000W min.	1
Fire extinguishers - provide and install type and *number to meet applicable State and local codes for size of office indicated, including a fire extinguisher suitable for use on a computer terminal fire.	*
Electric pencil sharpeners.	2
Electronic office type printing calculators capable of addition, subtraction, multiplication and division with memory and a supply of printing paper.	1
Small Multi-Function Laser Printer/Copier/Scanner/Fax combination unit, network capable, as specified below under <u>Computer Related Hardware and Software</u> .	1
Large Multi-Function Laser Printer/Copier/Scanner/Fax combination unit, network capable, as specified below under <u>Computer Related Hardware and Software</u> .	-
Field Office Wi-Fi Connection as specified below under <u>Computer Related Hardware and Software</u>	1
Wi-Fi Printer as specified below under <u>Computer Related Hardware and Software</u> .	1
Digital Camera as specified below under <u>Computer Related Hardware and Software</u> .	1
Video Projector as specified below under <u>Computer Related Hardware and Software</u> .	-
Smart Board as specified below under <u>Computer Related Hardware and Software</u> .	-
Infrared Thermometer, including annual third party certified calibration, case, and cleaning wipes.	1
Concrete Curing Box as specified below under Concrete Testing Equipment.	1
Concrete Air Meter and accessories as specified below under Concrete Testing Equipment as specified below. Contractor shall provide third party calibration on a quarterly basis.	1
Concrete Slump Cone and accessories as specified below under Concrete Testing Equipment.	1
First Aid Kit	1
Flip Phones as specified under <u>Computer Related Hardware and Software</u> .	-
Smart Phones as specified under <u>Computer Related Hardware and Software</u> .	-

The furnishings and equipment required herein shall remain the property of the Contractor. Any supplies required to maintain or operate the above listed equipment or furnishings shall be provided by the Contractor for the duration of the project.

Computer Related Hardware and Software: The CTDOT will supply by its own means the actual Personal Computers for the CTDOT representatives. The Contractor shall supply the Field Office Wi-Fi Connection, Wi-Fi Printer, Digital Camera(s), Flip Phones, Smart Phones,

Multifunction Laser Printer/Copier/Scanner/Fax, Video Projectors, and Smart Board(s) as well as associated hardware and software, must meet the requirements of this specification as well as the latest minimum specifications posted, as of the project advertising date, at CTDOT's web site <http://www.ct.gov/dot/cwp/view.asp?a=1410&q=563904>

Within 10 calendar days after the signing of the Contract but before ordering/purchasing the Wi-Fi Printer (separate from the Multifunction Laser Printer/Copier/Scanner/Fax), Field Office Wi-Fi, Digital Camera(s), Flip Phones, Smart Phones, Multifunction Laser Printer/Copier/Scanner/Fax, Video Projector(s) and Smart Board(s) as well as associated hardware, the Contractor must submit a copy of their proposed order(s) with catalog cuts and specifications to the Administering CTDOT District for review and approval. The Wi-Fi Printer, Wi-Fi Router, Flip Phones, Smart Phones, digital cameras, Projector(s) and Smart Board(s) will be reviewed by CTDOT District personnel. The Multifunction Laser Printer/Copier/Scanner/Fax will be reviewed by the CTDOT OIS. The Contractor shall not purchase the hardware, software, or services until the Administering CTDOT District informs them that the proposed equipment, software, and services are approved. The Contractor will be solely responsible for the costs of any hardware, software, or services purchased without approval.

The Contractor and/or their internet service provider shall be responsible for the installation and setup of the field office Wi-Fi, Wi-Fi printer, and the configuration of the wireless router as directed by the CTDOT. Installation will be coordinated with CTDOT District and Project personnel.

After the approval of the hardware and software, the Contractor shall contact the designated representatives of the CTDOT administering District, a minimum of 2 working days in advance of the proposed delivery or installation of the Field Office Wi-Fi Connection, Wi-Fi Printer, Digital Camera(s), Flip Phones, Smart Phones, Multifunction Laser Printer/Copier/Scanner/Fax, Video Projectors and Smart Board(s), as well as associated hardware, software, supplies, and support documentation.

The Contractor shall provide all supplies, paper, maintenance, service and repairs (including labor and parts) for the Wi-Fi printers, copiers, field office Wi-Fi, fax machines and other equipment and facilities required by this specification for the duration of the Contract. All repairs must be performed within 48 hours. If the repairs require more than 48 hours then an equal or better replacement must be provided.

Once the Contract has been completed, the hardware and software will remain the property of the Contractor.

First Aid Kit: The Contractor shall supply a first aid kit adequate for the number of personnel expected based on the size of the field office specified and shall keep the first aid kit stocked for the duration that the field office is in service.

Rain Gauge: The Contractor shall supply install and maintain a rain gauge for the duration of the project, meeting these minimum requirements. The rain gauge shall be installed on the top of a

post such that the opening of the rain gauge is above the top of the post an adequate distance to avoid splashing of rain water from the top of the post into the rain gauge. The Location of the rain gauge and post shall be approved by the Engineer. The rain gauge shall be made of a durable material and have graduations of 0.1 inches or less with a minimum total column height of 5 inches. If the rain gauge is damaged the Contractor shall replace it prior to the next forecasted storm event at no additional cost.

Concrete Testing Equipment: If the Contract includes items that require compressive strength cylinders for concrete, in accordance with the Schedule of Minimum Testing Requirements for Sampling Materials for Test, the Contractor shall provide the following equipment.

- A) Concrete Cylinder Curing Box – meeting the requirements of Section 6.12 of the Standard Specifications.
- B) Air Meter – The air meter provided shall be in good working order and meet the requirements of AASHTO T 152.
- C) Slump Cone Mold – Slump cone, base plate, and tamping rod shall be provided in like-new condition and meet the requirements of AASHTO T119, Standard Test Method for Slump of Hydraulic-Cement Concrete.

All testing equipment will remain the property of the Contractor at the completion of the project.

Insurance Policy: The Contractor shall provide a separate insurance policy, with no deductible, in the minimum amount of five thousand dollars (\$5,000) in order to insure all State-owned data equipment and supplies used in the office against all losses. The Contractor shall be named insured on that policy, and the CTDOT shall be an additional named insured on the policy. These losses shall include, but not be limited to: theft, fire, and physical damage. The CTDOT will be responsible for all maintenance costs of CTDOT owned computer hardware. In the event of loss, the Contractor shall provide replacement equipment in accordance with current CTDOT equipment specifications, within seven days of notice of the loss. If the Contractor is unable to provide the required replacement equipment within seven days, the CTDOT may provide replacement equipment and deduct the cost of the equipment from monies due or which may become due the Contractor under the Contract or under any other contract. The Contractor's financial liability under this paragraph shall be limited to the amount of the insurance coverage required by this paragraph. If the cost of equipment replacement required by this paragraph should exceed the required amount of the insurance coverage, the CTDOT will reimburse the Contractor for replacement costs exceeding the amount of the required coverage.

Maintenance: During the occupancy by the CTDOT, the Contractor shall maintain all facilities and furnishings provided under the above requirements, and shall maintain and keep the office quarters clean through the use of weekly professional cleaning to include, but not limited to, washing & waxing floors, cleaning restrooms, removal of trash, etc. Exterior areas shall be mowed and clean of debris. A trash receptacle (dumpster) with weekly pickup (trash removal) shall be provided. Snow removal, sanding and salting of all parking, walkway, and entrance

ways areas shall be accomplished during a storm if on a workday during work hours, immediately after a storm and prior to the start of a workday. If snow removal, salting and sanding are not completed by the specified time, the State will provide the service and all costs incurred will be deducted from the next payment estimate.

**Method of Measurement:** The furnishing and maintenance of the construction field office will be measured for payment by the number of calendar months that the office is in place and in operation, rounded up to the nearest month.

There will not be any price adjustment due to any change in the minimum computer related hardware and software requirements.

**Basis of Payment:** The furnishing and maintenance of the Construction Field Office will be paid for at the Contract unit price per month for "Construction Field Office, Medium," which price shall include all material, equipment, labor, service contracts, licenses, software, repair or replacement of hardware and software, related supplies, utility services, parking area, external illumination, trash removal, snow and ice removal, and work incidental thereto, as well as any other costs to provide requirements of this specified this specification.

<u>Pay Item</u>	<u>Pay Unit</u>
Construction Field Office, Medium	Month

## **ITEM #0971001A – MAINTENANCE AND PROTECTION OF TRAFFIC**

### **Article 9.71.01 – Description is supplemented by the following:**

The Contractor shall maintain and protect traffic as described by the following and as limited in the Special Provision "Prosecution and Progress":

#### **SR 712 (Bridge Street) and Route 34 (Main Street)**

The Contractor shall maintain and protect a minimum of one lane of traffic in each direction, each lane on a paved travel path not less than 11 feet in width.

Where turn lanes exist, the Contractor shall provide an additional 10 feet of paved travel path to be used for turning vehicles only. This additional 10 feet of travel path shall be a minimum length of 150 feet. It shall be implemented so that sufficient storage, taper length, and turning radius are provided.

During Stage Construction, the travel lanes and shoulders shall be as shown on the Stage Construction Plans in the Contract Plans.

Excepted therefrom will be those periods, during the allowable periods between 6:00 a.m. and 9:00 p.m. Monday through Friday, and between 10:00 a.m. and 6:00 p.m. on Saturday and Sunday when the Contractor is actively working, at which time the Contractor shall maintain and protect at least one lane of traffic in each direction, each lane on a paved travel path not less than 11 feet in width. The contractor shall provide temporary traffic control at the signalized intersection of SR 712 and Route 34 when all lanes are not available in their marked locations.

Excepted therefrom will be those periods, during all other allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Engineer.

#### **All Other Roadways**

The Contractor shall maintain and protect a minimum of one lane of traffic in each direction, each lane on a paved travel path not less than 11 feet in width.

Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working, at which time the Contractor shall maintain and protect at least an alternating one-way traffic operation, on a paved travel path not less than 11 feet in width. The length of the alternating one-way traffic operation shall not exceed 300 feet and there shall be no more than one alternating one-way traffic operation within the project limits without prior approval of the Engineer.

### **Commercial and Residential Driveways**

The Contractor shall maintain access to and egress from all commercial and residential driveways throughout the Project limits. The Contractor will be permitted to temporarily close affected driveways while actively working with coordination and permission from the owner or proprietor.

### **Intermediate Term Sidewalk Closures**

The Contractor shall maintain and protect existing pedestrian accommodations, or a minimum of 4 feet in width, on all existing sidewalks, sidewalk ramps, and access to pedestrian pushbuttons, with the following exception:

- During the allowable periods and when the Contractor is actively constructing pedestrian amenities or installing signal equipment, the Contractor will be allowed to close pedestrian sidewalks and sidewalk ramps and restrict access to pedestrian pushbuttons for no more than a continuous 48 hour period of time unless otherwise noted.

No more than two corners of an intersection may be closed for an intermediate term sidewalk closure at any time. Where all four corners of an intersection have sidewalks and sidewalk ramps, diagonal corners shall not be closed at the same time.

During the intermediate term sidewalk closure, all approaches to the sidewalk shall be blocked by Construction Barricade Detectable with Sidewalk Closed signs.

The Contractor shall ensure that traffic control signals with pedestrian phases where access to the pushbuttons cannot be provided are revised at the start of the closure to automatically activate the pedestrian phase every signal cycle.

Intermediate term sidewalk closures may be extended to 72 hours with prior approval of the Engineer.

### **Derby Greenway**

The Contractor shall maintain access to and egress from the Derby Greenway. The Contractor shall coordinate with the City of Derby, before commencing any work that will impact the Derby Greenway. Any closure of the Greenway access will need to be approved by the Engineer in consultation with the City of Derby. A closure plan with respective signage shall be prepared by the Contractor for approval by the Engineer.

### **Article 9.71.03 - Construction Method is supplemented as follows:**

#### **General**

Unpaved travel paths will only be permitted for areas requiring full depth and full width reconstruction. The unpaved section shall be the full width of the road and shall be perpendicular to the travel lanes. The Contractor will be allowed to maintain traffic on processed aggregate for a duration not to exceed 10 calendar days and opposing traffic lane dividers shall be used as a centerline.

The Contractor is required to delineate any raised structures within the travel lanes, so that the structures are visible day and night, unless there are specific Contract plans and provisions to temporarily lower these structures prior to the completion of work.

The Contractor shall schedule operations so that pavement removal and roadway resurfacing shall be completed full width across a roadway or bridge section by the end of a work shift, or as directed by the Engineer.

When the installation of all intermediate courses of bituminous concrete pavement is completed for the entire roadway, the Contractor shall then install the final course of bituminous concrete pavement.

When the Contractor is excavating adjacent to the roadway, the Contractor shall provide a 3 foot shoulder between the work area and travel lanes, with traffic drums spaced every 50 feet. At the end of the work shift if the vertical drop-off exceeds 3 inches, the Contractor shall provide a temporary bituminous concrete traversable slope of 4:1 or flatter that is acceptable to the Engineer.

The Contractor, during the course of any active overhead construction work, shall close the lanes directly below the work area for the entire length of time overhead work is being undertaken.

At no time shall an overhead sign be left partially removed or installed.

When an existing sign is to be relocated or replaced, the work shall be completed during the same work shift.

The field installation of a signing pattern shall constitute interference with existing traffic operations and shall not be allowed, except during the allowable periods.

On limited-access highways, construction vehicles entering travel lanes shall not be allowed without a lane closure. The lane closure shall be of sufficient length to allow vehicles to enter or exit the work area at the posted speed limit, in order to merge with existing traffic.

### **Existing Signing**

The Contractor shall maintain all existing overhead and side-mounted signs within the Project limits throughout the duration of the Project. The Contractor shall temporarily relocate signs and sign supports as many times as deemed necessary, and shall install temporary sign supports if necessary and as directed by the Engineer.

### **Requirements for Winter**

The Contractor shall schedule a meeting with representatives of the Department, including the offices of Maintenance and Traffic, and the Town/City to determine any interim traffic control measures the Contractor shall accomplish prior to winter to provide safety to motorists and permit adequate snow removal procedures. This meeting shall be held prior to October 31 of each year and will include, but not be limited to, discussion of the status and schedule of the following items: lane and shoulder widths, pavement restoration, traffic signal work, pavement markings, and signing.

### **Signing Patterns**

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory.

### **Pavement Markings - Non-Limited Access Roadways**

During construction, the Contractor shall maintain all pavement markings on paved surfaces on all roadways throughout the limits of the Project.

Temporary pavement markings shall be installed on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift.

Permanent Epoxy Resin Pavement Markings shall be installed on the final course of bituminous concrete pavement within 10 calendar days of the final pavement installation if no Pavement Marking Grooves are proposed.

### **Temporary Pavement Markings**

Temporary pavement markings that will be in place for less than 72 continuous hours may consist of temporary plastic pavement marking tape at the Contractor's expense. Additionally;

1. These temporary pavement markings shall include centerlines, lane lines (solid and broken), and stop bars.
2. Centerlines shall consist of two 4 inch wide yellow markings, 2 feet in length, side by side, 4 inches apart, at 40 foot intervals.
3. Lane lines shall consist of 4 inch wide white markings, 2 feet in length, at 40 foot intervals.
4. No passing zones shall be posted with signs in those areas where the final centerlines have not been established on two-way roadways.
5. Stop bars may consist of two 6 inch wide white markings or three 4 inch wide white markings placed side by side.
6. The temporary plastic pavement marking tape shall be installed in accordance with Section 12.12.
7. The Contractor shall remove and dispose of the temporary plastic pavement marking tape prior to another course of bituminous concrete pavement being installed.

Temporary pavement markings that will be in place for 72 continuous hours or more should consist of temporary painted pavement markings and shall be installed in accordance with Section 12.09. The markings shall include centerlines, edge lines, lane lines (solid and broken), lane-use arrows, and stop bars on each intermediate course of bituminous concrete pavement and on any milled surface by the end of the work shift. Edge lines and lane-use arrows are not required if the next course of bituminous concrete pavement will be placed within 10 calendar days.

All temporary pavement markings exposed throughout the winter shall be Epoxy Resin Pavement Markings, unless directed otherwise by the Engineer.

Temporary pavement markings, as described above, shall be maintained until the permanent pavement markings are installed.

### **Final Pavement Markings**

Refer to Pavement Marking Groove special provisions for pavement marking requirements. Permanent epoxy resin pavement markings shall be installed in accordance with Section 12.10 and the applicable Traffic Engineering Standard Drawings.

If Temporary Plastic Pavement Marking Tape is installed, then the Contractor shall remove and dispose of these markings during the same work shift that the permanent epoxy resin pavement markings are to be installed. The cost of furnishing, installing and removing the Temporary Plastic Pavement Marking Tape shall be at the Contractor's expense.

### **Traffic Control During Construction Operations**

The following guidelines shall assist field personnel in determining when and what type of traffic control patterns to use for various situations. These guidelines shall provide for a safer and more efficient movement of traffic through work zones and enhance the safety of work forces in the work area.

## **Traffic Control Patterns**

Traffic control patterns shall be used when a work operation requires that all or part of any vehicle or work area protrudes onto any part of a travel lane or shoulder or is within the clear zone. For each situation, the installation of traffic control devices shall be based on the following:

- Speed and volume of traffic.
- Duration of operation.
- Exposure to hazards.

Traffic control patterns shall be uniform, neat, and orderly in order to command respect from the motorist.

Lane reduction tapers should be placed so that the entire length of the taper is installed on a tangent section of roadway and the entire taper area can be seen by the motorist.

All existing conflicting signs shall be removed, covered with an opaque material, or turned so that they are not legible to oncoming traffic prior to implementing a traffic control pattern. The existing signs shall be uncovered or reinstalled once the pattern is removed.

A buffer area should be provided during installation of a traffic control pattern and maintained for the duration of the work. The buffer area shall be free of any equipment, workers, materials, and parked vehicles.

Construction Traffic Control Plans 19 through 25 should be used for moving operations such as line striping, rumble strips, pothole patching, mowing, or sweeping when it is necessary for equipment to occupy a travel lane.

Traffic control patterns are not required for vehicles on an emergency patrol type activity or for a short duration stop of up to one hour, as long as the equipment is contained within the shoulder. Flashing lights, arrow boards, truck-mounted or trailer-mounted impact attenuators, and appropriate Trafficperson(s) shall be used when required.

In a situation not adequately covered by the Construction Traffic Control Plans, the Contractor shall contact the Engineer for assistance prior to setting up a traffic control pattern.

## **Placement of Signs**

Signs shall be placed in a position that allows motorists the opportunity to reduce their speed prior to the work area. Signs shall be installed on the same side of the roadway as the work area. On multi-lane divided highways, advance warning signs shall be installed on both sides of the highway. On directional roadways (on-ramps, off-ramps, one-way roads) where the sight distance to signs is restricted, these signs should be installed on both sides of the roadway.

## **Allowable Adjustment of Signs and Devices Shown on the Construction Traffic Control Plans**

The Construction Traffic Control Plans contained herein show the location and spacing of signs and devices under ideal conditions. Signs and devices should be installed as shown on these plans.

The proper application of the Construction Traffic Control Plans and installation of traffic control devices is dependent upon actual field conditions.

In the case of a horizontal or vertical sight restriction in advance of the work area, the traffic control pattern shall be extended to provide adequate sight distance for approaching traffic.

Adjustments to the Construction Traffic Control Plans shall only be made at the direction of the Engineer.

Table 1 indicates the minimum taper lengths required for a lane closure based on the posted speed limit and lane width of the roadway. These taper lengths shall only be used when the recommended taper lengths shown on the Construction Traffic Control Plans cannot be achieved.

**Table 1 – Minimum Taper Length**

POSTED SPEED LIMIT (MPH)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE (FEET)	
	FREEWAYS	SECONDARY ROADS
30 OR LESS	180	165
35	245	225
40	320	295
45	540	495
50	600	550
55	660	605
65	780	715

## 1. Work Zone Safety Meetings

- 1.a) Prior to the commencement of work, a Work Zone Safety Meeting shall be conducted with representatives from DOT Construction, Connecticut State Police (Local Barracks), Municipal Police, the Contractor (Project Superintendent) and the Traffic Control Subcontractor (if different than the prime Contractor) to review the traffic operations, lines of responsibility, and operating guidelines which will be used on the Project. DOT Traffic Engineering shall be invited to the Work Zone Safety Meeting. Other Work Zone Safety Meetings during the course of the Project should be scheduled as needed.
- 1.b) A Work Zone Safety Meeting Agenda shall be developed and used at the Meeting to outline the anticipated traffic control issues during the construction of this Project. Any issues that can't be resolved at these Meetings will be brought to the attention of the District Engineer and the Office of Construction. The agenda shall include:
  - i. Review Project scope of work and time;
  - ii. Review Section 1.08, Prosecution and Progress;
  - iii. Review Section 9.70, Trafficpersons;
  - iv. Review Section 9.71, Maintenance and Protection of Traffic;
  - v. Review Contractor's schedule and method of operations;
  - vi. Review special concern areas: ramps, turning roadways, medians, lane drops, etc.;
  - vii. Open discussion of work zone questions and issues;
  - viii. Discussion of review and approval process for changes in Contract requirements as they relate to work zone areas.

## 2. General

- 2.a) Traffic control patterns shall only be installed if the required minimum number of signs, traffic cones, traffic drums, and other equipment (i.e. one Arrow Board for each lane closed, two Truck-Mounted or Trailer-Mounted Attenuators (TMAs), Changeable Message Sign, etc.) are on Site.
- 2.b) The Contractor shall have spare maintenance and protection of traffic equipment (TMAs, Arrow Board, Changeable Message Sign(s), construction signs, traffic cones, traffic drums, etc.) available at all times in case of mechanical failures, etc. Spare maintenance and protection of traffic equipment installed as a result of a sudden equipment breakdown shall be replaced by the Contractor within 24 hours.
- 2.c) Failure of the Contractor to have the required minimum number of signs, personnel, and equipment, which results in the pattern not being installed, shall not be a reason for a time extension or claim for lost time.
- 2.d) In cases of differences of opinion between the Contractor and the Inspection staff, the Contractor shall follow the directions of the Engineer. The matter shall be brought to the District Office for resolution immediately or, in the case of work after regular business hours, on the next business day.

### **3. Installing and Removing Traffic Control Patterns**

- 3.a) Lane closures shall be installed beginning with the advance warning signs and proceeding forward toward the work area.
- 3.b) Lane closures shall be removed in the reverse order, beginning at the end of the work area, or traffic control pattern, and proceeding back toward the advance warning signs.
- 3.c) Stopping traffic may be allowed within the allowable hours stated in Section 1.08.04:
  - i. For those activities stated within the Contract.
  - ii. During paving, milling operations, or similar activities where, in the middle of the operation, it is necessary to flip the pattern to complete the operation on the other half of the roadway so traffic does not travel across the longitudinal joint or difference in roadway elevation.
  - iii. To move slow moving equipment across live traffic lanes into the work area.
- 3.d) The Contractor shall adhere to using the proper signs, placing the signs correctly, and ensuring the proper spacing of signs.
- 3.e) Additional devices are required on entrance ramps, exit ramps, and intersecting roads to warn and/or move traffic into the proper travel path prior to merging with or exiting from the mainline traffic. This shall be completed before installing the mainline pattern past the ramp or intersecting roadway.
- 3.f) Workers are prohibited from crossing the travel lanes on limited access roadways to install and remove signs or other devices on the opposite side of the roadway. Any signs or devices on the opposite side of the roadway shall be installed and removed separately.

### **4. Implementation of Rolling Road Block (RRB)**

- 4.a) Temporary road closures using a RRB may be allowed on limited access highways for operations associated with the installation and removal of temporary lane closures. RRB may be allowed for the installation and removal of lead signs and lane tapers only and shall meet the following requirements:
  - i. Refer to the Limitation of Operations Chart provided in Section 1.08.04 for the hours allowed for implementing a RRB operation. The Contractor shall only implement a RRB operation within the hours shown in the Chart.
  - ii. In areas with good sight lines and full shoulders, signs on the side of the road opposite the traffic pattern should be installed in a separate operation.
  - iii. TMAs equipped with Arrow Boards shall be used to slow traffic to implement the RRB. State Police Officers in marked vehicles may be used to support the implementation of the RRB. The RRB shall start by having all vehicles, including TMAs and police vehicles, leave the shoulder or on-ramp and accelerate to normal roadway speeds in each lane. The vehicles will then position themselves side by side and decelerate to the RRB speed on the highway.
  - iv. A Pre-Warning Vehicle, as specified elsewhere in the Contract, shall be used to advise the motorists that sign pattern installation or removal is underway.

- v. The RRB duration shall not exceed 15 minutes from the start of the traffic block until all lanes are opened as designated in the Limitation of Operations chart. If the RRB duration exceeds 15 minutes on 2 successive shifts, no further RRB will be allowed until the Contractor obtains approval for a revised installation procedure from the District.
- vi. RRB shall not be used to expand a lane closure pattern to an additional lane during the shift. The workers and equipment required to implement the additional lane closure should be staged from within the closed lane. TMAs (and State Police if available) shall be used to protect the workers installing the taper in the additional lane.
- vii. Exceptions to these work procedures may be submitted to the District Office for consideration. A minimum of 2 business days shall be allowed for review and comment by the District.
- viii. The Engineer and the Contractor will review and discuss the RRB procedures (including any revisions) in advance of the work. The implementation of the agreed upon plan will be reviewed with the State Police during the Work Zone Safety Meeting held before each shift involving temporary lane closures. If the State Police determine that alternative procedures should be implemented for traffic control during the work shift, the Department and Contractor will attempt to resolve any discrepancies with the duty sergeant at the Troop. If the discrepancies are unable to be resolved prior to the start of the shift, then the work will proceed as recommended by the Department. Any unresolved issues shall be addressed the following day.

## **5. Use of Arrow Boards**

- 5.a) On limited access roadways, one Arrow Board shall be used for each lane that is closed. The Arrow Board shall be installed concurrently with the installation of the traffic control pattern and its placement shall be as shown on the Construction Traffic Control Plans. Additional Arrow Boards shall be deployed if sight distances are limited.
- 5.b) On non-limited access roadways, the use of an Arrow Board for lane closures is optional. The roadway geometry, sight distance, and traffic volume shall be considered in the decision to use the Arrow Board.
- 5.c) A vehicle displaying an arrow board shall be equipped with high-intensity rotating, flashing, oscillating, or strobe lights.
- 5.d) The flashing arrow mode shall be used for lane closure (merge) tapers.
- 5.e) The flashing arrow mode shall not be used for temporary alternating one-way traffic operations or to laterally shift lanes of traffic.
- 5.f) The flashing double arrow mode shall only be used for closing a center lane on a multilane roadway where adjacent left and right lanes remain open.
- 5.g) For shoulder work or roadside work near the shoulder, the Arrow Board shall be positioned in the shoulder and the flashing alternating diamond mode should be used.

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- 5.h) The flashing alternating diamond caution mode should also be used when supplemental Arrow Boards are positioned in an already closed lane.

## **6. Use of Truck-Mounted or Trailer-Mounted Impact Attenuators (TMAs)**

- 6.a) On limited access roadways, lane closures shall use a minimum of two TMAs to install and remove traffic control patterns. If two TMAs are not available, then the pattern shall not be installed.
- 6.b) On non-limited access roadways, the use of TMAs to install and remove patterns closing a lane(s) is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to utilize the TMAs.
- 6.c) On limited access roadways, one TMA shall be placed on the shoulder and the second TMA shall be approximately 1,000 feet ahead blocking the lane to establish the advance and transition signing. The Arrow Board mounted on the TMA shall be in the arrow mode when taking the lane. The sign truck and workers shall be at sufficient distance ahead of the second TMA. In no case shall the TMA be used as the sign truck or a work truck. Once the transition is in place, the TMAs shall travel in the closed lane until all Portable Changeable Message Signs, signs, Arrow Boards, and cones/drums are installed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when traveling in the closed lane.
- 6.d) A TMA shall be placed prior to the first work area in the pattern. If there are multiple work areas within the same pattern, then additional TMAs shall be positioned at each additional work area as needed. The Arrow Board mounted on the TMA should be in the flashing alternating diamond caution mode when in the closed lane.
- 6.e) TMAs shall be positioned a sufficient distance prior to the workers or equipment being protected to allow for appropriate vehicle roll-ahead in the event that the TMA is hit, but not so far that an errant vehicle could travel around the TMA and into the work area. For additional placement and use details, refer to Section 18.06. Some operations, such as paving and concrete repairs, do not allow for placement of the TMA(s) within the specified distances. In these situations, the TMA(s) shall be placed at the beginning of the work area and shall be advanced as the paving or concrete operations proceed.
- 6.f) TMAs will be paid for in accordance with how the unit is used. If it is used as a TMA and is in the proper location as specified, then it will be paid for at the specified hourly rate for Truck-Mounted or Trailer-Mounted Impact Attenuator. When the TMA is used as an Arrow Board, it will be paid for at the daily rate for Arrow Board. If a TMA is used to install and remove a pattern and is also used as an Arrow Board in the same day, then the unit will be paid for as a Truck-Mounted or Trailer-Mounted Impact Attenuator for the hours used to install and remove the pattern, typically 2 hours (1 hour to install and 1 hour to remove). If the TMA is also used as an Arrow Board during the same day, then the unit will only be paid for at the daily rate as an Arrow Board.

## 7. Use of Traffic Drums and Traffic Cones

- 7.a) On limited-access highways, ramps, and turning roadways:
  - i. Traffic drums shall be used for taper channelization.
  - ii. Traffic drums shall be used to delineate raised catch basins and other hazards.
  - iii. Traffic cones with a minimum height of 42 inches may be used in place of drums in the tangent section of a closed lane or shoulder.
  - iv. Traffic cones less than 42 inches in height shall not be used.
- 7.b) On all roadways:
  - i. Traffic drums shall be used in place of traffic cones in traffic control patterns that are in effect for more than a 36-hour duration.
  - ii. Traffic cones shall not be left unattended.
  - iii. Traffic cones with a minimum height of 42 inches shall be used when the posted speed limit is 45 MPH or above.
- 7.c) Typical spacing of traffic drums and/or cones shown on the Construction Traffic Control Plans in the Contract are maximum spacings and may be reduced to meet actual field conditions as required.

## 8. Use of Barricade Warning Lights

- 8.a) Barricade Warning Lights may be installed on channelizing devices when used in a merge taper. The Barricade Warning Lights shall flash in a sequential pattern when used in a merge taper. The successive flashing shall occur from the upstream end (beginning) of the merge taper to the downstream end (end) of the merge taper.
- 8.b) Type C Barricade Warning Lights may be used at night to delineate the edge of the travel way.
- c) Type B Barricade Warning Lights shall be used on post-mounted advanced warning signs.

## 9. Use of Portable Changeable Message Signs (PCMS)

- 9.a) On limited access roadways, one PCMS shall be used in advance of the traffic control pattern for all lane closures. Prior to installing the pattern, the PCMS shall be installed and in operation, displaying the appropriate lane closure information. The PCMS shall be positioned  $\frac{1}{2}$  to 1 mile ahead of the start of the lane closure taper. If the distance to the nearest exit ramp is greater than the specified  $\frac{1}{2}$  to 1 mile distance, then an additional PCMS shall be positioned a sufficient distance ahead of the exit ramp (and before the previous on-ramp where practical) to alert motorists to the work and therefore offer them an opportunity to take the exit.
- 9.b) On non-limited access roadways, the use of PCMS for lane closures is optional. The roadway geometry, sight line distance, and traffic volume shall be considered in the decision to use the PCMS.
- 9.c) PCMS should be placed off the shoulder of the roadway and behind a traffic barrier, if practical. Where a traffic barrier is not available to shield the PCMS, it should be placed

off the shoulder and outside of the clear zone. If a PCMS has to be placed on the shoulder of the roadway or within the clear zone, it should be placed on the paved shoulder with a minimum of five traffic drums placed in a taper in front of it to delineate its position. The taper shall meet minimum distance requirements for a shoulder closure. The PCMS shall be protected if it is used for a continuous duration of 36 hours or more.

- 9.d) The PCMS shall be removed from the clear zone and have the display screen cleared and turned 90 degrees away from the roadway when the PCMS is no longer required.
- 9.e) The PCMS should not be used within 1,000 feet of an existing PCMS or Variable Message Sign (VMS).
- 9.f) A PCMS message shall:
  - i. consist of no more than two phases;
  - ii. contain no more than three lines of text per phase;
  - iii. have no more than eight characters per line, including spaces.
- 9.g) The PCMS should be used for specific situations that need to command the motorist's attention which cannot be conveyed with standard construction signs. The PCMS should not be used for generic messages (ex.: Road Work Ahead, Bump Ahead, Gravel Road, etc.) or for messages that need to be displayed for long periods of time, such as during stage construction. These types of messages should be displayed with construction signs. Special signs shall be coordinated with the Office of Construction and the Division of Traffic Engineering for the proper layout/dimensions required.
- 9.h) Typical messages that are allowed on the PCMS are shown below. Approval must be received from the Office of Construction for any message(s) different than the typical messages shown in Figure 1.
- 9.i) All messages shall comply with the information provided in Tables 2 and 3.

	<u>Phase 1</u>	<u>Phase 2</u>	<u>Message No.</u>	<u>Phase 1</u>	<u>Phase 2</u>
1	LEFT LANE CLOSED	MERGE RIGHT	9	LANES CLOSED AHEAD	REDUCE SPEED
2	2 LEFT LANES CLOSED	MERGE RIGHT	10	LANES CLOSED AHEAD	USE CAUTION
3	LEFT LANE CLOSED	REDUCE SPEED	11	EXIT XX CLOSED	USE EXIT YY
4	2 LEFT LANES CLOSED	REDUCE SPEED	12	EXIT XX CLOSED USE YY	FOLLOW DETOUR
5	RIGHT LANE CLOSED	MERGE LEFT	13	2 LANES SHIFT AHEAD	USE CAUTION
6	2 RIGHT LANES CLOSED	MERGE LEFT	14	3 LANES SHIFT AHEAD	USE CAUTION
7	RIGHT LANE CLOSED	REDUCE SPEED			
8	2 RIGHT LANES CLOSED	REDUCE SPEED			

**Figure 1: Typical PCMS Messages**

**Table 2: Acceptable Abbreviations**

<b>Word Message</b>	<b>Standard Abbreviation</b>	<b>Word Message</b>	<b>Standard Abbreviation</b>
Access	ACCS	Minimum	MIN
Afternoon / Evening	PM	Minor	MNR
Ahead	AHD	Minute(s)	MIN
Alternate	ALT	Monday	MON
Avenue	AVE, AV	Morning / Late Night	AM
Bicycle	BIKE	Mount	MT
Blocked	BLKD	Mountain	MTN
Boulevard	BLVD	National	NATL
Bridge	BR	Normal	NORM
CB Radio	CB	North	N
Center	CTR	Northbound	NBND
Center	CNTR	Oversized	OVRSZ
Chemical	CHEM	Parking	PKING
Circle	CIR	Parkway	PKWY
Compressed Natural Gas	CNG	Pavement	PVMT
Condition	COND	Pedestrian	PED
Congested	CONG	Place	PL
Construction	CONST	Pounds	LBS
Court	CT	Prepare	PREP
Crossing	XING	Quality	QLTY
Crossing (other than highway-rail)	XING	Right	RT
Downtown	DWNTN	Road	RD
Drive	DR	Roadwork	RDWK
East	E	Route	RT, RTE
Eastbound	EBND	Saint	ST
Electric Vehicle	EV	Saturday	SAT
Emergency	EMER	Service	SERV
Entrance, Enter	ENT	Shoulder	SHLDR
Exit	EX	Slippery	SLIP
Express	EXP	South	S
Expressway	EXPWY	Southbound	SBND
Feet	FT	Speed	SPD
Freeway	FRWY, FWY	State, county, or other non-US or non-Interstate numbered route	[Route Abbreviation determined by highway agency]**
Friday	FRI	Street	ST
Frontage	FRNTG	Sunday	SUN
Hazardous	HAZ	Telephone	PHONE
Hazardous Material	HAZMAT	Temporary	TEMP
High Occupancy Vehicle	HOV	Terrace	TER
Highway	HWY	Thruway	THWY
Highway-Rail Grade Crossing	RR XING	Thursday	THURS
Hospital	HOSP	Tons of Weight	T
Hour(s)	HR, HRS	Traffic	TRAF
Information	INFO	Trail	TR

ITEM #0971001A

International	INTL	Travelers	TRVLRS
Interstate	I-	Tuesday	TUES
Junction / Intersection	JCT	Turnpike	TPK
Lane	LN	Two-Way Intersection	2-WAY
Left	LFT	Two-Wheeled Vehicles	CYCLES
Liquid Propane Gas	LP-GAS	Upper	UPR
Local	LOC	US Numbered Route	US
Lower	LWR	Vehicle(s)	VEH, VEHS
Maintenance	MAINT	Warning	WARN
Major	MAJ	Wednesday	WED
Maximum	MAX	West	W
Mile(s)	MI	Westbound	WBND
Miles Per Hour	MPH		

\*\* A space and no dash shall be placed between the abbreviation and the number of the route.

**Table 3: Unacceptable Abbreviations**

<b>Unacceptable Abbreviation</b>	<b>Intended Word</b>	<b>Common Misinterpretation</b>
ACC	Accident	Access (Road)
CLRS	Clears	Colors
DLY	Delay	Daily
FDR	Feeder	Federal
L	Left	Lane (Merge)
LT	Light (Traffic)	Left
PARK	Parking	Park
POLL	Pollution (Index)	Poll
RED	Reduce	Red
STAD	Stadium	Standard
WRNG	Warning	Wrong

## 10. Use of State Police Officers

- 10.a) State Police may be used only on limited access highways and secondary roadways that are under their primary jurisdiction. A minimum of one Officer may be used per critical sign pattern; however, a State Police presence is not required. Shoulder closures and right lane closures can generally be implemented without the presence of a State Police Officer. Left lane closures may also be implemented without State Police presence in areas with only moderate traffic and wide, unobstructed medians. It may be desirable to have a State Police presence, when available, under specific situations, such as nighttime lane closures; left lane closures with minimal width for setting up advance signs and staging; lane and shoulder closures on turning roadways/ramps or mainline where sight distance is minimal; and closures where extensive turning movements or traffic congestion regularly occur; however, they are not required.
- 10.b) If a State Police presence is provided, once the pattern is in place, the State Police Officer should be positioned in a non- hazardous location in advance of the pattern to provide advance warning to the motorist. If traffic backs up beyond the beginning of the pattern, then the State Police Officer shall reposition so that they are located prior to the backup. The State Police Officer should not be located immediately behind or within the roll ahead area of any TMA or within the work zone buffer area. The State Police Officer shall not be positioned in such a way that the State Police Officer obstructs any construction warning signs or PCMS from view of the motorist.
- 10.c) Other functions of the State Police Officer(s) may include:
  - i. Assisting construction vehicles entering and exiting the work area.
  - ii. Enforcement of motor vehicle laws within the work area, if specifically requested by the Engineer.
- 10.d) State Police Officers assigned to a work site shall take direction from the Engineer.

## NOTES FOR TRAFFIC CONTROL PLANS

1. IF A TRAFFIC STOPPAGE OCCURS IN ADVANCE OF SIGN (A), THEN AN ADDITIONAL SIGN (A) SHALL BE INSTALLED IN ADVANCE OF THE STOPPAGE.
2. SIGNS (AA), (A), AND (D) SHOULD BE OMITTED WHEN THESE SIGNS HAVE ALREADY BEEN INSTALLED TO DESIGNATE A LARGER WORK ZONE THAN THE WORK ZONE THAT IS ENCOMPASSED ON THIS PLAN.
3. SEE TABLE 1 FOR ADJUSTMENT OF TAPERS IF NECESSARY.
4. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN TRAFFIC DRUMS SHALL BE USED IN PLACE OF TRAFFIC CONES.
5. ANY LEGAL SPEED LIMIT SIGNS WITHIN THE LIMITS OF A ROADWAY / LANE CLOSURE AREA SHALL BE COVERED WITH AN OPAQUE MATERIAL WHILE THE CLOSURE IS IN EFFECT, AND UNCOVERED WHEN THE ROADWAY / LANE CLOSURE IS RE-OPENED TO ALL LANES OF TRAFFIC.
6. IF THIS PLAN REMAINS IN CONTINUOUS OPERATION FOR MORE THAN 36 HOURS, THEN ANY EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE ERADICATED OR COVERED, AND TEMPORARY PAVEMENT MARKINGS THAT DELINEATE THE PROPER TRAVELPATHS SHALL BE INSTALLED.
7. DISTANCES BETWEEN SIGNS IN THE ADVANCE WARNING AREA MAY BE REDUCED TO 100' ON LOW-SPEED URBAN ROADS (SPEED LIMIT < 40 MPH).
8. IF THIS PLAN IS TO REMAIN IN OPERATION DURING THE HOURS OF DARKNESS, INSTALL BARRICADE WARNING LIGHTS - HIGH INTENSITY ON ALL POST-MOUNTED DIAMOND SIGNS IN THE ADVANCE WARNING AREA.
9. A CHANGEABLE MESSAGE SIGN SHALL BE INSTALLED ONE HALF TO ONE MILE IN ADVANCE OF THE LANE CLOSURE TAPER.
10. SIGN (P) SHALL BE MOUNTED A MINIMUM OF 7 FEET FROM THE PAVEMENT SURFACE TO THE BOTTOM OF THE SIGN.

TABLE 1 - MINIMUM TAPER LENGTHS

POSTED SPEED LIMIT (MILES PER HOUR)	MINIMUM TAPER LENGTH FOR A SINGLE LANE CLOSURE
30 OR LESS	180' (55m)
35	250' (75m)
40	320' (100m)
45	540' (165m)
50	600' (180m)
55	660' (200m)
65	780' (240m)

METRIC CONVERSION CHART (1" = 25mm)

ENGLISH	METRIC	ENGLISH	METRIC	ENGLISH	METRIC
12"	300mm	42"	1050mm	72"	1800mm
18"	450mm	48"	1200mm	78"	1950mm
24"	600mm	54"	1350mm	84"	2100mm
30"	750mm	60"	1500mm	90"	2250mm
36"	900mm	66"	1650mm	96"	2400mm



SCALE: NONE

### CONSTRUCTION TRAFFIC CONTROL PLAN NOTES

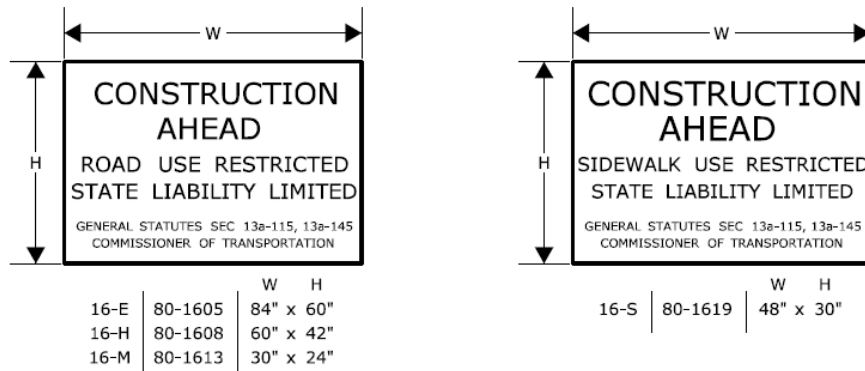
CONNECTICUT DEPARTMENT OF TRANSPORTATION  
BUREAU OF ENGINEERING & CONSTRUCTION

APPROVED

*Charles S. Harlow*  
PRINCIPAL ENGINEER

Charles S. Harlow  
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## SERIES 16 SIGNS



THE 16-S SIGN SHALL BE USED ON ALL PROJECTS THAT REQUIRE SIDEWALK RECONSTRUCTION OR RESTRICT PEDESTRIAN TRAVEL ON AN EXISTING SIDEWALK.

SERIES 16 SIGNS SHALL BE INSTALLED IN ADVANCE OF THE TRAFFIC CONTROL PATTERNS TO ALLOW MOTORISTS THE OPPORTUNITY TO AVOID A WORK ZONE. SERIES 16 SIGNS SHALL BE INSTALLED ON ANY MAJOR INTERSECTING ROADWAYS THAT APPROACH THE WORK ZONE. ON LIMITED-ACCESS HIGHWAYS, THESE SIGNS SHALL BE LOCATED IN ADVANCE OF THE NEAREST UPSTREAM EXIT RAMP AND ON ANY ENTRANCE RAMP PRIOR TO OR WITHIN THE WORK ZONE LIMITS.

THE LOCATION OF SERIES 16 SIGNS CAN BE FOUND ELSEWHERE IN THE PLANS OR INSTALLED AS DIRECTED BY THE ENGINEER.

SIGNS 16-E AND 16-H SHALL BE POST-MOUNTED.

SIGN 16-E SHALL BE USED ON ALL EXPRESSWAYS.

SIGN 16-H SHALL BE USED ON ALL RAMP, OTHER STATE ROADWAYS, AND MAJOR TOWN/CITY ROADWAYS.

SIGN 16-M SHALL BE USED ON OTHER TOWN ROADWAYS.

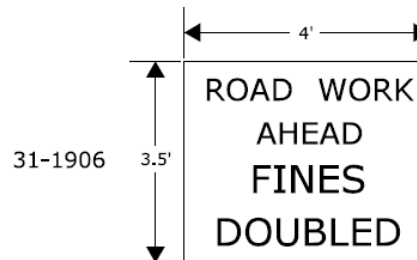
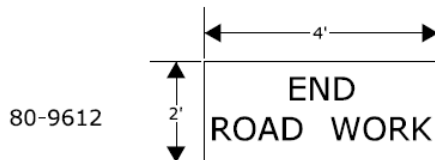
## REGULATORY SIGN "ROAD WORK AHEAD, FINES DOUBLED"

THE REGULATORY SIGN "ROAD WORK AHEAD FINES DOUBLED" SHALL BE INSTALLED FOR ALL WORK ZONES THAT OCCUR ON ANY STATE HIGHWAY IN CONNECTICUT WHERE THERE ARE WORKERS ON THE HIGHWAY OR WHEN THERE IS OTHER THAN EXISTING TRAFFIC OPERATIONS.

THE "ROAD WORK AHEAD FINES DOUBLED" REGULATORY SIGN SHALL BE PLACED AFTER THE SERIES 16 SIGN AND IN ADVANCE OF THE "ROAD WORK AHEAD" SIGN.

## "END ROAD WORK" SIGN

THE LAST SIGN IN THE PATTERN MUST BE THE "END ROAD WORK" SIGN.



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN  
**REQUIRED SIGNS**

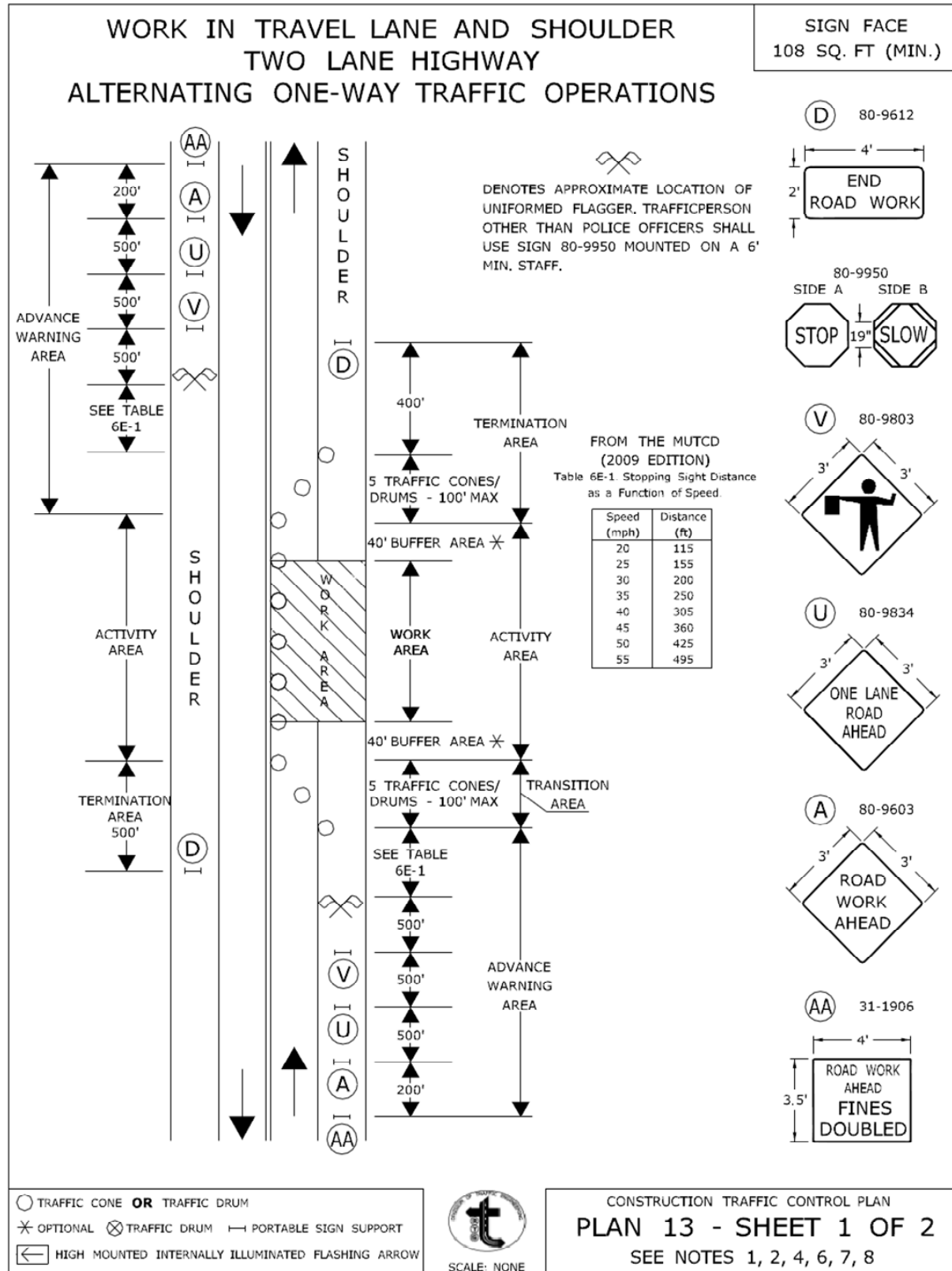
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ITEM #0971001A


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ITEM #0971001A

# WORK IN TRAVEL LANE AND SHOULDER TWO LANE HIGHWAY ALTERNATING ONE-WAY TRAFFIC OPERATIONS

SIGN FACE  
108 SQ. FT (MIN.)

## HAND SIGNAL METHODS TO BE USED BY UNIFORMED FLAGGERS

THE FOLLOWING METHODS FROM SECTION 6E.07, FLAGGER PROCEDURES, IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," SHALL BE USED BY UNIFORMED FLAGGERS WHEN DIRECTING TRAFFIC THROUGH A WORK AREA. THE STOP/SLOW SIGN PADDLE (SIGN NO. 80-9950) SHOWN ON THE TRAFFIC STANDARD SHEET TR-1220 01 ENTITLED, "SIGNS FOR CONSTRUCTION AND PERMIT OPERATIONS" SHALL BE USED.

### A. TO STOP TRAFFIC

TO STOP ROAD USERS, THE FLAGGER SHALL FACE ROAD USERS AND AIM THE STOP PADDLE FACE TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FREE ARM SHALL BE HELD WITH THE PALM OF THE HAND ABOVE SHOULDER LEVEL TOWARD APPROACHING TRAFFIC.



### B. TO DIRECT TRAFFIC TO PROCEED

TO DIRECT STOPPED ROAD USERS TO PROCEED, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. THE FLAGGER SHALL MOTION WITH THE FREE HAND FOR ROAD USERS TO PROCEED.



### C. TO ALERT OR SLOW TRAFFIC

TO ALERT OR SLOW TRAFFIC, THE FLAGGER SHALL FACE ROAD USERS WITH THE SLOW PADDLE FACE AIMED TOWARD ROAD USERS IN A STATIONARY POSITION WITH THE ARM EXTENDED HORIZONTALLY AWAY FROM THE BODY. TO FURTHER ALERT OR SLOW TRAFFIC, THE FLAGGER HOLDING THE SLOW PADDLE FACE TOWARD ROAD USERS MAY MOTION UP AND DOWN WITH THE FREE HAND, PALM DOWN.



- TRAFFIC CONE **OR** TRAFFIC DRUM  
 ✱ OPTIONAL ⊗ TRAFFIC DRUM ⇌ PORTABLE SIGN SUPPORT  
 ◀ HIGH MOUNTED INTERNALLY ILLUMINATED FLASHING ARROW



SCALE: NONE

CONSTRUCTION TRAFFIC CONTROL PLAN  
**PLAN 13 - SHEET 2 OF 2**  
 SEE NOTES 1, 2, 4, 6, 7, 8

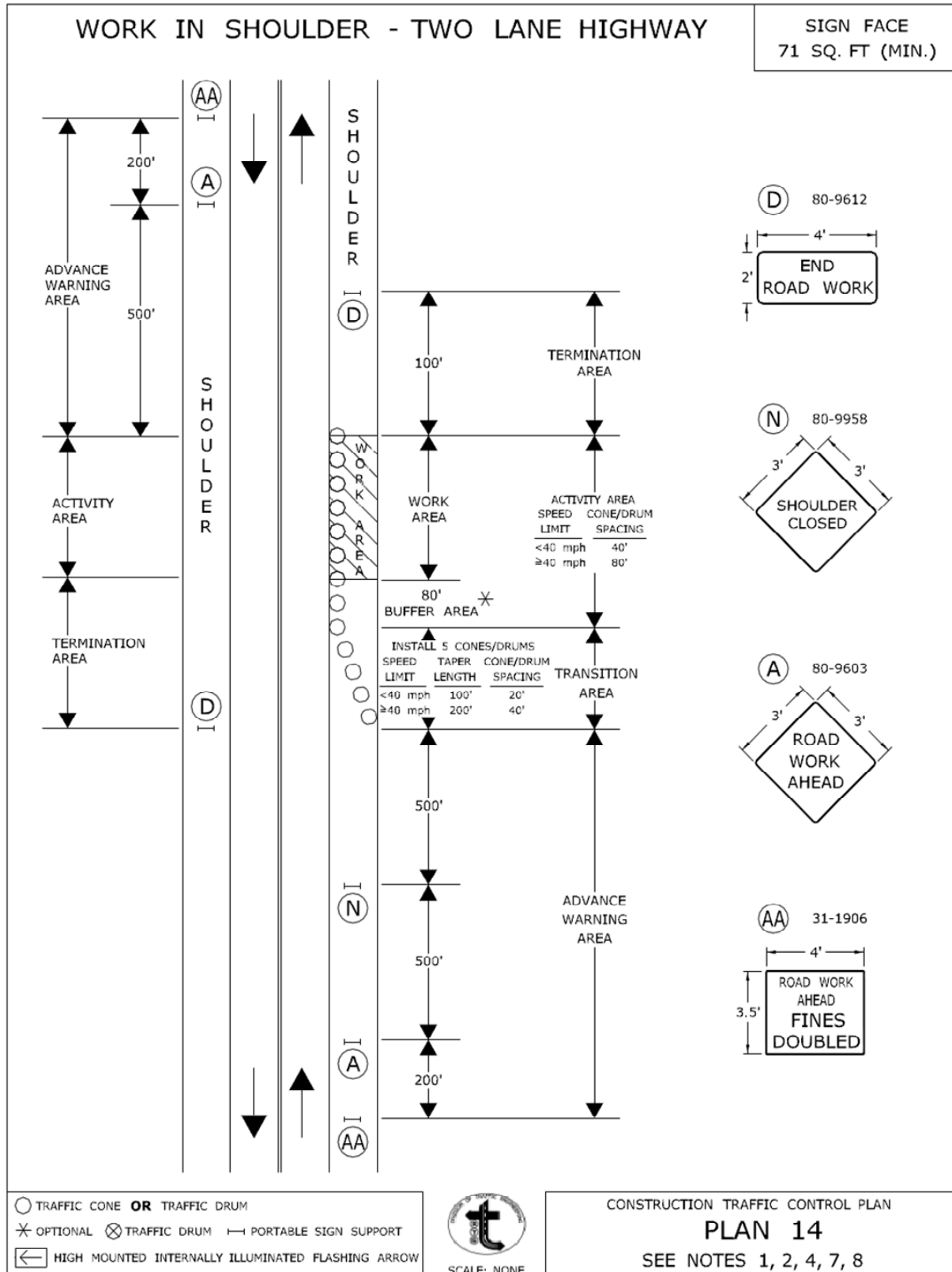
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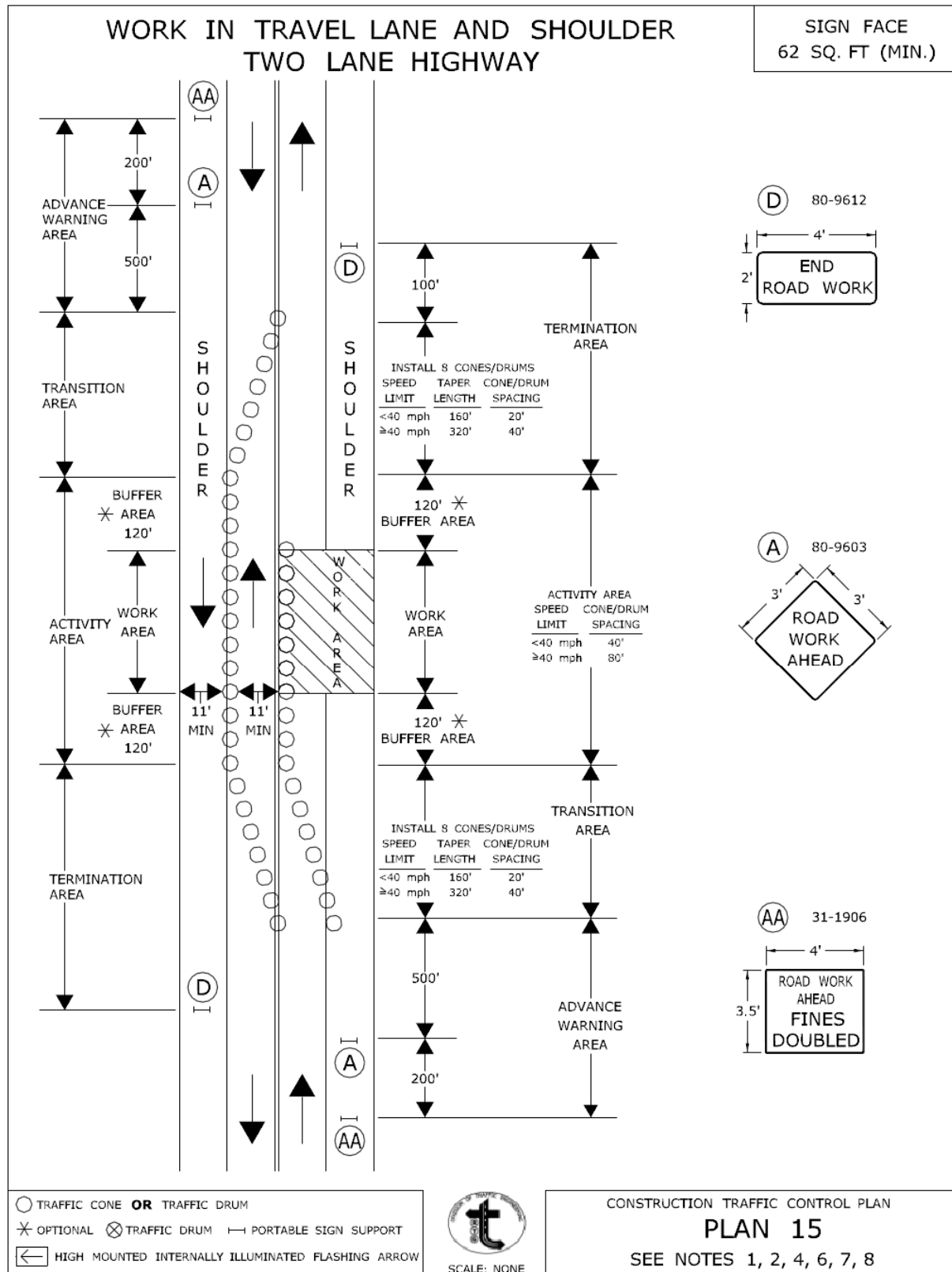
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ITEM #0971001A

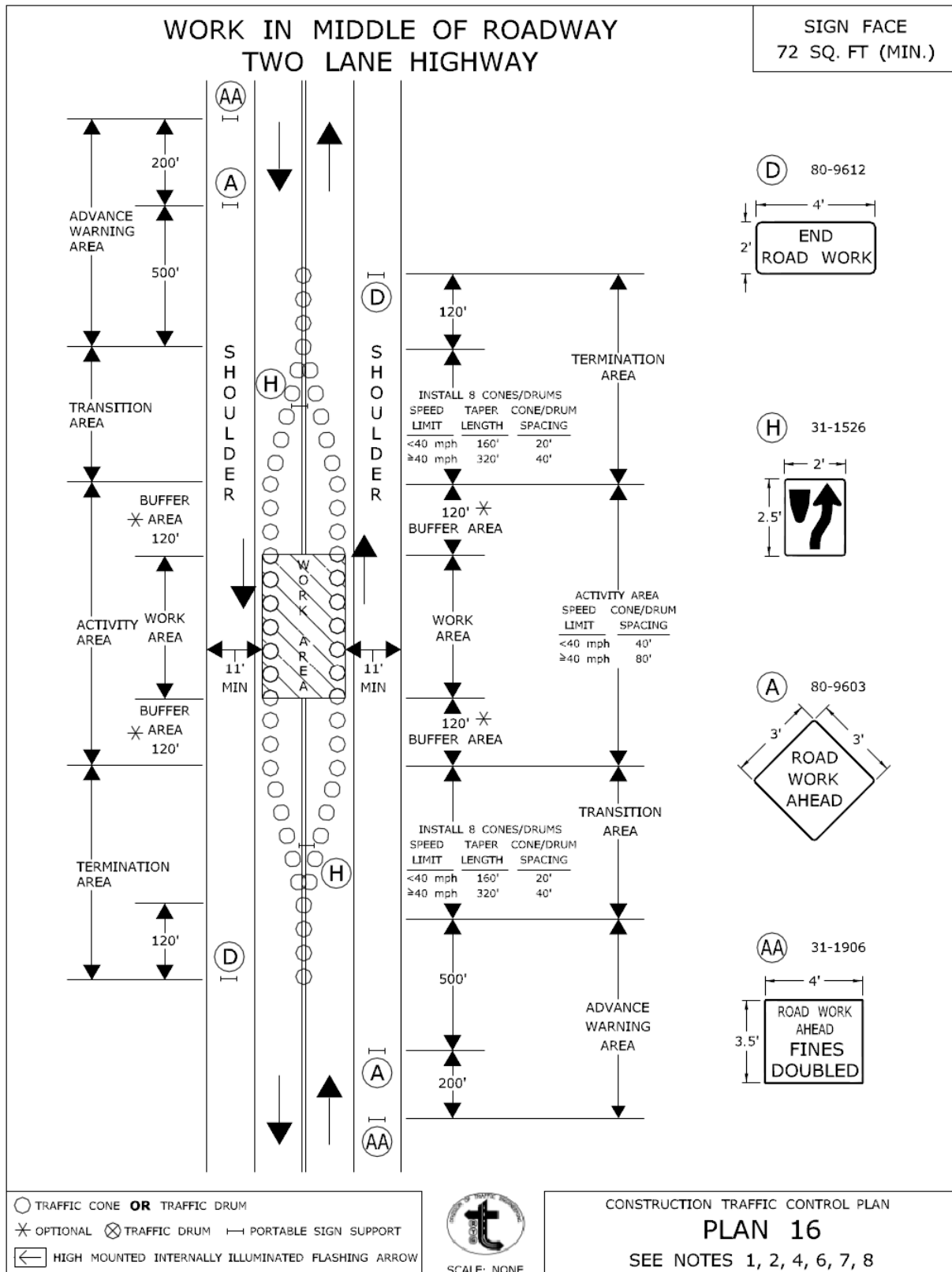


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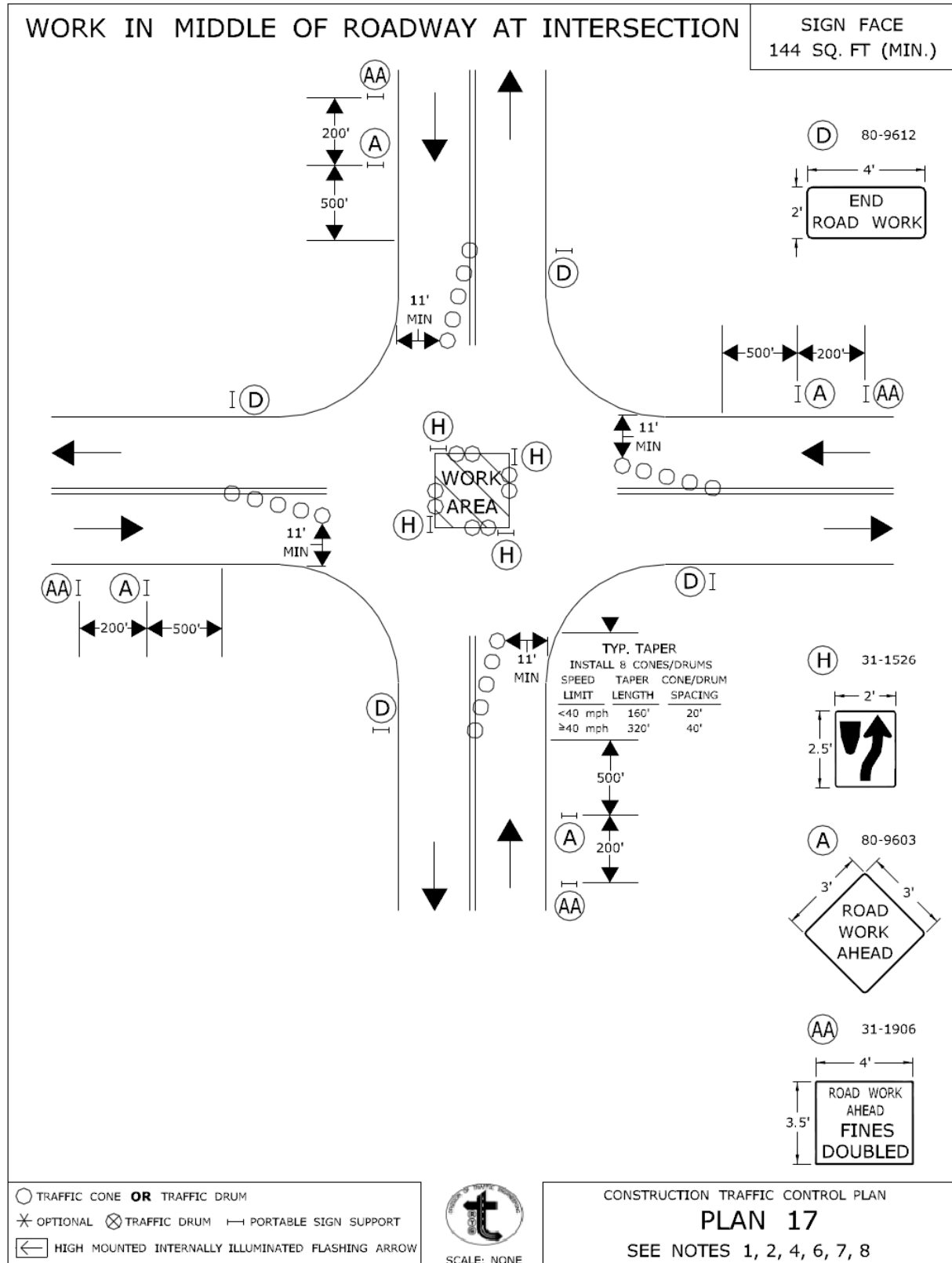


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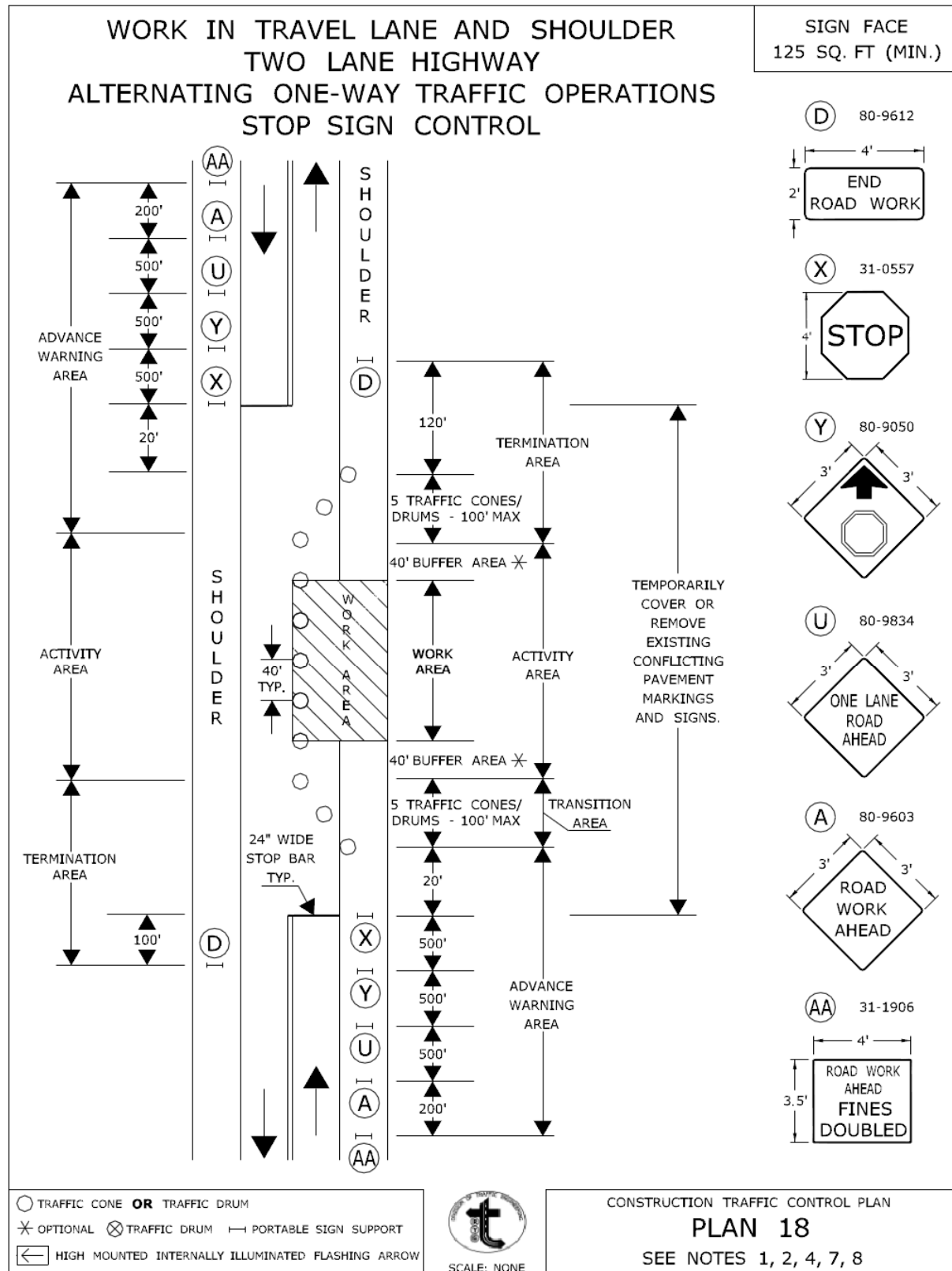


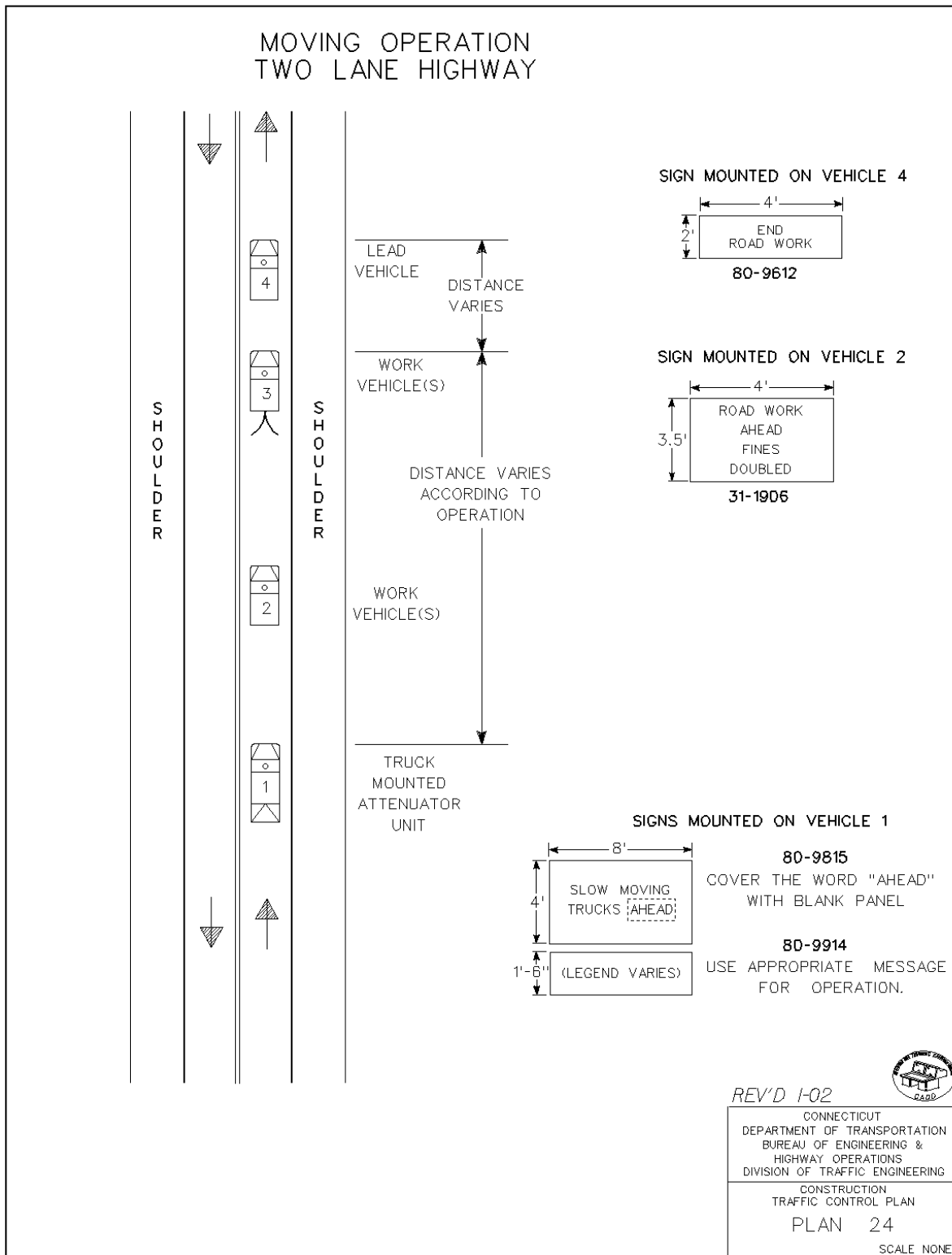
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2012.06.05 15:57:16-04'00"  
PRINCIPAL ENGINEER

ITEM #0971001A





APPROVED John D. McCall DATE 1-30-02  
PRINCIPAL ENGINEER

**Article 9.71.05 – Basis of Payment is supplemented by the following:**

The cost of maintaining and keeping operational existing and or new lighting throughout the construction as shown on the plans and described herein to provide street lighting shall be paid for under the item “Maintenance and Protection of Traffic”.

The temporary relocation of signs and supports, and the furnishing, installation and removal of any temporary supports shall be paid for under the item “Maintenance and Protection of Traffic”. The costs to adjust existing traffic signals to be consistent with respective staging traffic lane markings shall be paid under Temporary Signalization.

The cost of furnishing, installing, and removing the material for the 4H:1V traversable slopes and transitions to traversable slopes shall be paid for under the item “Maintenance and Protection of Traffic.”

## **ITEM #0974002A – REMOVAL OF EXISTING MASONRY**

Work under this item shall conform to the requirements of Section 9.74 amended as follows:

**Article 9.74.02 – Construction Methods:** Add the following:

Pneumatic hammers or any other method approved by the Engineer may be used to remove the concrete. Maximum 15 pound hammers shall be used for general removal. Pneumatic tools shall not be placed in direct contact with the reinforcing steel that is to remain. Removal of concrete by blasting will not be permitted.

The Contractor shall take necessary precautions to prevent any damage to the portions of the structure to remain. Any damage shall be repaired by the Contractor, as directed by the Engineer, and at no cost to the State.

When removing the concrete and reinforcing steel, the Contractor shall take necessary precautions to prevent debris from dropping to areas below the structure into the Housatonic River.

All debris shall be disposed of, from the site, by the Contractor.

**Article 9.74.05 – Basis of Payment:** Delete in its entirety and replace with the following:

This work will be paid for at the contract unit price per cubic yard for “Removal of Existing Masonry”, which price shall include all equipment, tools and labor incidental thereto.

**Pay Item**

Removal of Existing Masonry

**Pay Unit**

C.Y.

## **ITEM #1003595A – DECORATIVE LIGHT POLE AND LIGHT FIXTURE**

**Description:** This item shall consist of furnishing and installing a decorative light pole and LED luminaire of the dimensions and type as indicated, completely wired and attached to the bridge parapet anchorage and in accordance with the plans and specifications.

**Materials:** LED downlight fixture, light pole, mounting arm, and clamshell base shall be supplied as a unit from the same manufacturer. Luminaires shall be set on 20' light poles and mounted on 6' roadway style arm. The light pole shall conform to the "Buy America" requirements of Title 23 CFR 635.410.

The decorative light pole and light fixtures shall match those selected for Project No. 36-184 Reconstruction of Route 34 (Main Street) in Derby, CT.

### **Luminaire:**

Sternberg Lighting, Omega 1531LED product line, catalog number: **1A-1531LED-F-24L40T4-MDL014-FG-FHD-CAF-BKT** or approved equal.

For LED luminaires other than the specified luminaire, the Contractor shall submit a sample fixture, catalog cut, and photometrics on disk. A catalog cut will be required for all submitted luminaires.

The Engineer reserves the right to disapprove any alternate luminaire based solely on photometric performance, lumen maintenance, and construction. Alternate luminaires are required to meet average illuminance and uniformity ratio as recommended by the Illuminating Engineering Society of North America (RP-8-00) for the given roadway application as calculated by the Department.

For alternate luminaires, adherence to the following material minimum requirements shall be met:

The luminaire light source shall be LED. The housing of the luminaire shall be heavy-duty cast aluminum with a maximum effective projected area (EPA) not to exceed 1.45 square feet. The luminaire weight shall not exceed 50lbs. The luminaire housing shall have a minimum ingress protection rating of IP65 with a rating of IP66 for the LED optics. The luminaire shall be UL 1598 listed and RoHS compliant. The luminaire shall carry a 3G vibration rating. The die-cast aluminum door frame shall feature integral hinges for tool-less entry, complete with watertight grommet. The fixture shall have a four bolt mounting connection capable of mounting on a 1.66" to 2.38" diameter bracket arm tube. The luminaire shall be rated for bridge/structure mounting.

The luminaire housing shall be finished with polyester powder coat paint (4 mil thickness) and shall meet or exceed AAMA 2604-05 standard. The color shall be textured black (RAL9005TX).

The LED optical system shall consist of high-performance white LEDs. The luminaire optics shall provide cool white light between 4000K and 4500K CCT, 70 CRI with no sacrifice in lumen output. The luminaire shall provide an initial delivered lumen output between 10,500 lumens and 12,550 lumens at typical system (lamp and LED Driver) wattage of 90 watts or less. The luminaire shall produce a minimum of 83 lumens per watt. The luminaire shall provide an IESNA type IV distribution. The luminaire's L70 rating shall be > 100,000 hours at 25°C. Performance shall be tested as per LM80, LM79 & TM21. The luminaire shall have IES "full-cutoff" optics.

The LED luminaire shall operate at 240 volts. LED drivers shall provide a high power factor of 95%. The LED luminaire shall be provided with integral 10kV surge suppression protection. The electrical components shall have a quick disconnect harness. The LED luminaire shall be suitable for operation in temperatures from -40°C to 55°C (-40°F to 130°F). Aluminum heat sinks shall be provided to transfer heat rapidly away from the LED source.

The LED luminaire shall carry a limited 5 year warranty on the LEDs and the Driver.

### Pole

The light pole shall be the following or approved equal:

Sternberg Lighting, catalog number: **85-20-S-RTF-12FF-RDBP-BK** with CAF6-BKT roadway style arm as indicated on the plans. Pole to be galvanized with 1"x36" anchor bolts set at 10" anchor bolt diameter.

Prior to ordering the poles the Contractor shall verify all pole dimensions and catalog nomenclature to achieve a luminaire mounting height above the roadway of 25' when mounted to 5'-5" tall major pilaster (to luminous center of luminaire).

For alternate poles, adherence to the following material minimum requirements shall be met:

The pole shall be made from a one piece seamless 5" round high-tensile carbon steel shaft (sealed by a rolled and flattened vertical weld seam) welded to the base plate. The pole shall have a .180" wall thickness. The steel anchor plate shall be 1" thick, 11½" square, with an anchor bolt circle diameter range of 10" to 12½". The base plate shall accept four 1" diameter anchor bolts. The shaft length (including base plate) shall be as indicated on the plans. The pole shall provide a luminaire mounting height above the roadway of 25' when mounted to 5'-5" tall major pilaster (to luminous center of luminaire).

A maintenance opening (minimum 2" by 4½") with cover and ground lug shall be provided centered 20" above the bottom of the base plate. The pole shall be rated for a minimum of 90 mph wind loading. The clamshell base cover shall be two piece, cast from 356 aluminum, complete with cast-in access door and stainless steel hardware.

An access door shall be provided in the pole shaft and in the cast aluminum base cover for wiring and mechanically secured with tamper-proof, stainless steel screws.

The complete assembly shall be galvanized as per ASTM A-123. The galvanized pole shall be properly cleaned, etched, and rinsed prior to the painting process.

The light fixture mounting arm shall meet AASHTO 2001 standard specifications for structural support for luminaires. The arm shall be 6' in length, truss type and shall be as detailed on the plans. The bracket shall be made from bent 6063-T4 aluminum tubing (tempered to T6 after welding) formed into a vertically oriented ellipse of 4" by 2 7/8" welded onto a plate and mechanically assembled to the pole adapter. The truss member shall be fabricated of bent aluminum 6061-T6 tubing, 1 1/4" outside diameter complete with cast decorative end caps and mechanically assembled to the arm. The pole mount adapter shall be made of cast 356 aluminum, complete with decorative cap and shall slip fit over a 5" outside diameter pole or tenon. The pole mount adapter shall be mechanically fastened to the pole shaft.

The pole, base cover, and arm shall be finished with a textured polyester powder coat paint electrostatically applied to a thickness of 4 mils. The chemical composition of the paint shall include thermosetting polyester resin which will provide a highly durable finish resistant to UV rays and corrosion. The finish shall be textured black (RAL9005TX).

The pole with clamshell base shall fit on the light standard anchorage as designed with no additional modification to the anchorage or parapet fence.

### Miscellaneous

Conductors shall be #10 AWG in accordance with Article M.15.05 of the Standard Specifications. Insulation shall be THHN/THWN.

No. 10 bare copper ground wire shall conform to Article M.15.13.

Fuses and fuse holders shall conform to the requirements of Article M.15.05.

Vibration Isolation pad and washers shall conform to M.15.04-f.

**Construction Methods:** The Contractor shall install the decorative light pole and light fixture on the bridge anchorage at the locations as indicated on the plans. The light pole shall be securely fastened to the anchor bolts with hardware installation as indicated in the plan details.

New fuse holders and fuses shall be installed in the light pole base and two No. 10 AWG conductors run from the load side of the fuse holders to the power connection terminals in the luminaire. The line side of the fuse holders shall be properly connected to the lighting circuit conductors. The light pole shall be bonded to the system ground wire using a No. 10 bare copper grounding wire and a No. 10 ground wire shall be run up the pole to the luminaire ground tab.

The luminaire shall be connected to the No. 10 tap conductors and readied for operation. The full functionality of the luminaire shall be tested to the satisfaction of the Engineer.

An access door shall be provided in the pole shaft and in the cast aluminum base cover for wiring and mechanically secured with tamper-proof, stainless steel screws.

**Method of Measurement:** This work will be measured for payment by the number of decorative light pole and light fixture units installed and accepted.

**Basis of Payment:** This work will be paid for at the contract unit price each for “Decorative Light Pole and Light Fixture” complete in place, which price shall include all materials, pole, clamshell base, anchors, mounting arm, luminaire, fuse kits, fuses, anchor bolts, LED lamps, drivers, hardware connections, tap conductors, and all equipment, tools, labor and all work incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Decorative Light Pole and Light Fixture	ea.

## **ITEM #1003887A – LINEAR ILLUMINATED DELINEATION SYSTEM**

**Description:** This item shall consist of furnishing and installing an LED decorative lighting and control system as shown on the plans. System components include bridge façade downlights, arch underside uplights, beacons, lighting control, and lighting accessories. This item shall consist of the provision of both labor and material necessary for the integration of the lighting fixtures. Lighting equipment includes remote web control capability, via Ethernet connection and integral modem module.

**Materials:** Material for this work shall conform to the following requirements, or approved equal:

### **Type L1 Linear LED Fascia Downlight**

Color Kinetics ColorGraze Compact 10x60

[https://www.docs.colorkinetics.com/specsheets/GrazeCompact\\_Color/Graze\\_Compact\\_Powercore\\_IntelliHue\\_100-277VAC\\_High\\_Power\\_10x60\\_1219mm\\_4ft.pdf](https://www.docs.colorkinetics.com/specsheets/GrazeCompact_Color/Graze_Compact_Powercore_IntelliHue_100-277VAC_High_Power_10x60_1219mm_4ft.pdf)

Martin Harman Exterior Linear RGBW Graze 1200 Series

<https://www.martin.com/en-US/products/exterior-linear-rgbw-graze>

### **Type L2 LED Beacon**

Color Kinetics ArchiPoint iColor Powercore

[https://www.docs.colorkinetics.com/specsheets/ArchiPoint/CK\\_SPEC8\\_ArchiPoint\\_iColor\\_Powercore\\_Translucent\\_Dome\\_Lens\\_with\\_Conduit\\_Mounting\\_Base\\_3\\_4\\_in\\_NPT.pdf](https://www.docs.colorkinetics.com/specsheets/ArchiPoint/CK_SPEC8_ArchiPoint_iColor_Powercore_Translucent_Dome_Lens_with_Conduit_Mounting_Base_3_4_in_NPT.pdf)

Martin Harman Exterior Dot-HP

<https://www.martin.com/en-US/products/exterior-dot-hp>

### **Type L3 Linear LED Arch Uplight**

Color Kinetics ColorGraze Compact 30x60

[https://www.docs.colorkinetics.com/specsheets/GrazeCompact\\_Color/Graze\\_Compact\\_Powercore\\_IntelliHue\\_100-277VAC\\_High\\_Power\\_30x60\\_1219mm\\_4ft.pdf](https://www.docs.colorkinetics.com/specsheets/GrazeCompact_Color/Graze_Compact_Powercore_IntelliHue_100-277VAC_High_Power_30x60_1219mm_4ft.pdf)

Martin Harman Exterior Linear RGBW Graze 1200 Series

<https://www.martin.com/en-US/products/exterior-linear-rgbw-graze>

### **Controls:**

Data Enabler Pro (In lamppost cavities)

<https://www.colorkinetics.com/global/products/pds/dataenablerpro>

Light System Manager (in Control Enclosure)

[https://www.docs.colorkinetics.com/support/datasheets/LSM\\_500\\_node.pdf](https://www.docs.colorkinetics.com/support/datasheets/LSM_500_node.pdf)

ActiveSite Gateway (In Control Enclosure – Allows for remote monitoring - requires internet connection)

<https://www.docs.colorkinetics.com/ActiveSite/Philips-ActiveSite-SpecSheet.pdf>

Interact Landmark Content App (Web-based user interface – requires internet connection)

<http://www.docs.colorkinetics.com/productguides/interact-landmark-content-app-brochure.pdf>

Martin P3 System Controller

DMX Lighting Controller

P3 PowerPort 1000 IP Outdoor Power and Data Supply

[https://www.martin.com/en-US/product\\_families/p3-system-controller](https://www.martin.com/en-US/product_families/p3-system-controller)

The control panels shall comply with the following:

#### Quality Assurance

- Source Limitations: Obtain lighting controls from a single source with total responsibility for compatibility of lighting control system components specified herein.
- All standard system line voltage components shall be UL listed and so labeled when delivered to the job site.
- Building Codes: All specified relays and control devices shall comply with the National Electrical Code. All units shall also comply with applicable local building codes.

#### Manufacturer Requirements:

- Experience: The manufacturer shall have been continuously engaged in the manufacture of architectural lighting controls, for no less than ten years.
- Testing: Manufacturer shall perform functional testing of all components to confirm proper operation prior to shipment.

#### Warranty

- Manufacturer's Warranty: All equipment shall be warranted free of defects in materials and workmanship.
- Warranty Period: 26 months from date of shipment or two years from date of turn-on, whichever occurs first.

#### Construction Methods:

1. Comply with NFPA 70 "National Electrical Code" for all work associated with this item.

2. All work shown on the plans shall be constructed; in accordance with the details and wiring diagrams; in accordance with manufacturer's product data including shop drawings, technical bulletins, and installation instructions; and as directed by the engineer.
3. The Electrical Contractor, as part of the work of this section, shall coordinate, receive, mount, connect, and place into operation all equipment. The Electrical Contractor shall furnish all conduit, wire, connectors, hardware, and other incidental items necessary for a properly functioning lighting control and relay system as described herein and shown on the plans. The Electrical Contractor shall maintain performance criteria stated by the manufacturer without defects, damage, or failure.
4. The Contractor shall label all circuits and components inside each enclosure.
5. Circuit Testing: The contractor shall test that all branch load circuits are operational before connecting loads to system load terminals, and then de-energize all circuits before installation.
6. Notification: Upon completion of the installation, the contractor shall notify the manufacturer that the system is ready for formal checkout. Notification shall be given in writing a minimum of 21 days prior to the time factory-trained personnel are required on site. Manufacturer shall have the option to waive formal turn-on.
7. Turn-On: Upon completion of all line, load and interconnection wiring, and after all fixtures are installed and the controllers are programmed, Manufacturer's Rep or, if waived, Contractor shall completely check the installation prior to energizing the system. Each installed relay system shall be tested for proper ON/OFF operations, and proper LED illumination. Each installed control panel shall be tested verifying that each controlled load adjusts to the selected setting and that all LED's illuminate properly.
8. Commissioning: Upon completion and testing of all contractor's wiring, fixtures and control panels, the Contractor shall request the services of a factory representative to completely check out the system and optimize the lighting effects.

Upon successful testing and energizing of system, the factory representative shall direct the final adjustment of the fixtures; adjust illumination levels, colors, scene, and schedule programming to the satisfaction of the Engineer. This work shall be done at night.

During this time, (a minimum of two weeks is anticipated), the Owner's representative shall be thoroughly instructed in the proper operation of the system. All equipment shall be 100% tested, including remote control operation via the modem interface, and operation of system for different scenes, events and schedules. Sample testing is not acceptable.

9. Within two weeks after system turn-on is completed, the manufacturer shall provide three sets of operation and maintenance manuals along with a copy of the written warranty and

a type-written remote dial-up user instruction sheet (1-single sided page maximum). listing step by step instructions for remotely calling and controlling (on/off) system relays.

**Method of Measurement:** This item, being paid on a lump sum basis, will not be measured for payment.

**Basis of Payment:** This work will be paid for at the contract lump sum price for "Linear Illuminated Delineation System", which shall include the furnishing and installing of a decorative lighting and control system including lights, lighting control, power/data supplies, leader cable, and lighting accessories; and all equipment, material, anchors, hardware, drilling, mounting brackets, tools and labor incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Linear Illuminated Delineation System	L.S.

**ITEM #1003906A - REMOVE LIGHT STANDARD**

**DESCRIPTION:** Under this item the contractor shall remove an existing light standard with transformer base, bracket, luminaire, and ballast as indicated on the plans or as directed by the Engineer. Removed aluminum light standards, aluminum transformer bases, aluminum brackets, luminaires, or steel light standards, steel transformer bases, lamps, and remote ballasts shall remain the property of United Illuminating if they wish to salvage the material. If not, the material will become property of the Contractor for disposal.

**MATERIALS:** The Contractor shall be responsible for damage to all equipment and material incurred during removal and hauling to the specified area. All repairs or replacements due to damage or loss by the Contractor shall be made at the Contractor's expense.

**CONSTRUCTION METHODS:** The Contractor shall remove a light standard, base, bracket, luminaire, and ballast, where required. The Contractor shall contact United Illuminating a minimum of 30 days in advance to coordinate removal of feeds. Contact information is listed in special provision Section 1.07.

H.I.D. lamps which are to be disposed of by the Contractor, must be handled as hazardous waste, and be subject to the provisions of the Resources Conservation and Recovery Act (RCRA) Subtitle C and chapter 446 of the Connecticut General Statutes. The removed lamps shall not be landfilled or incinerated, but must be handled and disposed of, or recycled, at an approved facility.

**METHOD OF MEASUREMENT:** This work will be measured for payment by the number of light standards with associated equipment removed and disposed of or delivered to the specified location, complete and accepted.

**BASIS OF PAYMENT:** This work will be paid for at the contract unit price each for "Remove Light Standard" complete, which price shall include the removal of light standards with associated transformer bases, brackets, luminaires, lamps, cable and hardware, delivering, disposing, hauling, storing, utility coordination and work, and including all materials, tools, equipment, labor and work incidental thereto.

**ITEM #1003912A - REMOVE CONCRETE LIGHT STANDARD BASE**

**DESCRIPTION:** Under this item the contractor shall remove an existing concrete light standard base where shown on the plans or as directed. The removed concrete base shall remain the property of the contractor.

**CONSTRUCTION METHODS:** The contractor shall remove a concrete light standard base where indicated on the plans or as directed by the Engineer. The removed base shall be properly disposed of by the contractor. The resulting excavation shall be backfilled, top soiled, graded and seeded to match surroundings in conformance with Section M.13, unless otherwise noted on the plans.

**METHOD OF MEASUREMENT:** This work will be measured for payment by the number of concrete light standard bases removed and disposed of, complete and accepted.

**BASIS OF PAYMENT:** This work will be paid for at the contract unit price each for "Remove Concrete Light Standard Base", which price shall include all materials, equipment and work incidental thereto including demolition of base, excavation, backfill, topsoil, grading, seeding, fertilizing, hauling and disposing of concrete base.

## **ITEM #1008317A – 3” RIGID METAL CONDUIT IN STRUCTURE**

**Description:** This work shall consist of furnishing and installing two 3-inch diameter rigid metal conduits concrete encased 4 inches all around the conduit with necessary fittings, where called for, at locations shown on the plans or as directed by the Engineer and in accordance with these specifications. A 2-inch minimum separation between the ducts shall be provided. The conduits shall be installed simultaneously with the handholes at each end of the structure to ensure that the conduit is at a 90-degree angle to the side of the handhole.

**Materials:** Rigid Metal Conduit and fittings shall be galvanized steel. Each section of conduit shall be UL listed, and shall conform to the requirements of the latest UL and ANSI standards for Rigid Metal Conduit. Set-screws or compression fittings shall not be used. Materials for this work shall also conform to all applicable requirements of Article M.15.09 of the Standard Specifications.

Concrete shall conform to Section M.03.

**Construction Methods:** The conduit shall be installed in the locations and to the dimensions shown on the plans or as directed by the Engineer. All conduit runs shall be installed in a neat and workmanlike manner in accordance with recognized trade practices. All conduit shall be installed in strict accordance with the current NEC Specifications. Conduit shall be installed empty and capped for future signal interconnect installation. An expansion fitting shall be used wherever required by an expansion joint in the structure. Upon completion of the work, all conduits shall be cleaned, swabbed and free from obstructions and burrs. After all cable has been installed, U.L. approved duct sealing compound shall be installed in the ends of all conduit which terminates in handholes and junction boxes.

1. **Conduit in Structure:** It shall be the Contractor's responsibility to coordinate the setting of all conduit in structure prior to pouring concrete. Expansion fittings shall be installed at all expansion joints. Where shown on the plans, outlet boxes with the conduits properly connected and conduit hanger inserts with proper sized nuts installed, shall be accurately and securely placed in the forms for concrete. Care shall be taken during the placing of the concrete around these boxes and inserts to consolidate the concrete thoroughly, preventing voids and honeycombs and to prevent any material displacement of the boxes or inserts. Sealed bonding bushing shall be provided at each conduit outlet in all boxes.
2. Pull cords shall be installed the full length of each conduit handhole to handhole.

**Method of Measurement:** Conduit shall be measured for payment by the actual number of linear feet of 3-Inch Rigid Metal Conduit in Structure installed and accepted in the finished structure. The measured length shall be from end to end along the centerline between the two conduits through all fittings. Measurement shall include the pull cords.

**Basis of Payment:** This work shall be paid for at the contract unit price per linear foot for "3" Rigid Metal Conduit in Structure" complete accepted in place, which price shall include fittings, materials, concrete encasement, forms, tools, equipment, labor, and work incidental thereto for both concrete encased conduits. Concrete Handholes shall be paid separately.

Pay Item

3" Rigid Metal Conduit in Structure

Pay Unit

L.F.

## **ITEM #1017034A – INSTALL SERVICE**

### **Description:**

The work under this item shall consist of the Contractor coordinating and scheduling the service installations/connections of the electrical service by the Utility Company from the utility service source to the meter socket on the service cabinet. This work will also entail installation of the meter by the Utility Company, installation of riser conduit, installation of primary and secondary conductors, installation of transformers and transformer pads, and installation of conductors underground between the utility service source and the meter socket on the service. The work shall also include energizing the metered service connection.

The Utility Company may render a service charge to the Contractor for installation and connection of underground services. These charges are to be paid for under this item. This item will include all associated utility work to have power installed into the meter socket and energized.

### **Materials:**

The materials for this work shall conform to the special provisions herein, utility specifications, and the National Electrical Code.

### **Construction Methods:**

The Contractor may install the service only after contacting and obtaining approval from the Utility Company. A representative of the Utility Company must be present for work involved with installing electric service from a manhole or pad mounted transformer/transclosure, unless otherwise directed by the Utility Company.

Under this item, the Contractor shall verify the load requirements of the lighting system components and notify the Engineer of any potential changes in electric service that may result in inadequate service connections. The Contractor shall verify the type and size of electric service cable to be used for electric service from a cabinet or location with metered service to the service cabinets, as shown on the site plans.

The Contractor shall contact the Utility Company representatives listed on the site plans at least 3 months in advance to coordinate the service connection work to be performed by the Contractor and the Utility Company. The date the service is connected and energized shall be record for billing purposes and provided to the Engineer or his designated representative. All work performed by the Contractor under this item shall be in accordance with service power company requirements, the Department of Public Utilities Control (DPUC), and the National Electrical Code. The Contractor shall obtain the necessary utility specifications prior to any service work.

The Contractor shall make all arrangements with the Utility Company and complete the required service request form for service location.

Billing responsibility information for the monthly energy charges will be provided to the Contractor prior to requesting new service.

This item shall include all required service conductors on the load side of the meter socket.

All circuit breakers in the cabinet shall be off when service is connected by the Utility Company.

The service installation shall be inspected and approved by the Engineer or their designated representative prior to the service being energized.

**Method of Measurement:**

This work will be measured for payment by the number of electric services installed, energized, complete and accepted by the Engineer and Utility Company.

**Basis of Payment:**

This work will be paid for at the contract unit price for each "Install Service", complete, energized and accepted in place, which shall include meter, service conductors between utility service source and meter socket, load side service conductors, riser conduit, primary conductors, secondary conductors, transformers, transformer pads, all Utility Company charges, and all materials, equipment, tools, labor and incidentals thereto.

Pay Item  
Install Service

Pay Unit  
EA.

## **ITEM #1118051A – TEMPORARY SIGNALIZATION (SITE NO. 1)**

### **Description:**

Work under this item shall consist of providing Temporary Signalization (TS) at the intersections shown on the plans

1. Existing Signalized Intersection: The Contractor shall keep each traffic signal completely operational at all times during construction through the use of existing signal equipment, temporary signal equipment, new signal equipment, or any combination thereof once TS has started as noted in the section labeled “Duration.”

2. Unsignalized Intersection: The Contractor shall provide TS during construction activities and convert the temporary condition to a permanent traffic signal upon project completion. The Contractor shall furnish, install, maintain, and relocate equipment to provide a complete temporary traffic signal, including but not limited to the necessary support structures, electrical connection and disconnection (if required) and energy supply, vehicle and pedestrian indications, vehicle and pedestrian detection (paid for under Item #1111201A – Temporary Detection {Site No. 1}), pavement markings, and signing.

### **Materials:**

- Pertinent articles of the Standard Specifications
- Supplemental Specifications and Special Provisions contained in this contract

**Construction Methods:** The Contractor shall perform a Preliminary Inspection and submit a Temporary Signalization (TS) Plan as described herein. No physical work will be allowed at any location until the requirements of the Preliminary Inspection and Temporary Signalization (TS) Plan have been met.

#### **1. Preliminary Inspection**

Prior to beginning any physical work, the Contractor shall meet with the Engineer and a representative from the DOT Electrical Maintenance Office (Town representative for a Town owned signal), to inspect and document (for the Engineer’s concurrence) the existing traffic signal’s physical and operational condition prior to implementing any Temporary Signalization (TS.) The inspection shall include, but not be limited to, the condition of the following:

- Controller Assembly (CA)
  - Controller Unit (CU)
  - Detection Equipment
  - Pre-emption Equipment
  - Coordination Equipment
- Vehicle and Pedestrian Signals
- Vehicle and Pedestrian Detectors
- Emergency Vehicle Pre-emption System (EVPS) \*

- Interconnect Cable and Splice Enclosures
- Support Structures
- Handholes, Conduit and Cable

It may be necessary to repair or replace equipment that is missing, damaged, or malfunctioning. The Contractor shall prepare a list of items for replacement or repair. If authorized by the Engineer, this work will be considered “Extra Work” under Article 1.09.04.

\* At a State owned signal the EVPS equipment is usually owned by the municipality. The Engineer will notify the municipality of the inspection schedule and information relating to its EVPS equipment as required.

The Preliminary Inspection meeting shall also include discussion of potential utility conflicts according to the *Utilities* section under *TS Plan* below.

## **2. Temporary Signalization (TS) Plan**

At least 30 days prior to implementation of each stage, the Contractor shall submit a 1:40 (1:500 metric) scale TS plan in pdf format for each location to the Engineer for review and comment. This TS Plan shall include, but not be limited to the following:

- Survey Ties
- Dimensions of Lanes, Shoulders, and Islands
- Slope Limits
- Clearing and Grubbing Limits
- Signal Phasing and Timing
- Location of Signal Appurtenances such as Supports, Signal Heads, Pedestrian Push buttons, Pedestrian Signals
- Location of Signing and Pavement Markings (stop bars, lane lines, etc.)
- Location, method, and mode of Temporary Detection
- Location of utilities and potential conflicts

Review of the TS plan does not relieve the Contractor of ensuring the TS meets the requirements of the MUTCD. The existing traffic signal plan of record for State-owned traffic signals is available from the Division of Traffic Engineering upon request. The Contractor may request existing traffic signal plans for Town-owned traffic signals from the Town.

It is acceptable to use the existing traffic signal plan as the TS plan by marking up the existing plan to show any needed changes.

The Contractor shall not implement the TS plan until all review comments have been addressed.

The TS Plan shall also address the following elements:

### **Earthwork**

The Contractor shall perform the necessary clearing and grubbing and the grading of slopes required for the installation, maintenance, and removal of the TS equipment. Upon

termination of the TS, the Contractor shall restore the affected area to its prior condition and to the satisfaction of the Engineer.

*Maintenance and Protection of Traffic*

The Contractor shall furnish, install, maintain, relocate, and remove signal-related signing (lane-use, signal ahead, NTOR, etc.), and pavement markings, as needed.

The Contractor shall install, relocate, or remove, equipment in a manner to cause no hazard to pedestrians, traffic or property. The Contractor shall maintain traffic as specified in the Special Provisions “Prosecution and Progress” and “Maintenance and Protection of Traffic” in the Contract.

*Utilities*

The Contractor shall verify that proposed temporary and/or relocated signal equipment will not conflict with proposed project utility relocations. The Contractor shall ensure that temporary span/temporary poles will not restrict the ability to shift utility cables off of the poles.

The Contractor shall coordinate its TS activities with all utility companies in the project area to ensure that the proposed temporary and/or relocated signal equipment will not be in conflict with existing utilities. The Contractor shall coordinate any utility work that may be needed prior to the Contractor implementing the TS plan.

*Electrical Service and Telephone Service at Existing Signalized Intersections*

The Contractor shall be responsible for relocating and changing any electrical service or telephone service source if required. Any arrangements with these companies and costs associated with any relocation or change shall be paid for by the Contractor. The Contractor shall ensure that the party previously responsible for the monthly payment of service shall continue to be responsible for that payment during TS.

*Electrical Service for TS at Unsignalized Intersections*

The Contractor shall be responsible for providing electrical service for TS at unsignalized intersections. All charges and all arrangements with the power company, including service requests, scheduling, and monthly bills in accordance with Section 10.00.12 and Section 10.00.13 of the Standard Specifications shall be the responsibility of the Contractor. The Contractor shall remove the service or leave the service if it will become permanent as shown on the plans or as directed by the Engineer.

*Temporary Signalization*

The Contractor shall furnish, install, maintain, relocate, and remove existing, temporary, and proposed traffic signal equipment and all necessary hardware; modifications to or furnishing of a new CA; and reprogramming of the CU phasing and timing; and any other incidentals related to this TS, as many times as necessary for each stage/phase of construction to maintain and protect traffic and pedestrian movements as shown on the plans or as directed by the Engineer.

*Inspection*

When requested by the Engineer, the TS will be subject to a field review by a representative of the Division of Traffic Engineering and/or the Town, The Contractor shall revise the TS as needed to address comments.

#### Detection

The Contractor shall provide vehicle detection on the existing, temporary, and/or new roadway alignment for all intersection approaches that have existing detection, detection in the final condition as shown on the signal plan, or as directed by the Engineer. The Contractor shall keep existing pedestrian pushbuttons accessible and operational at all times during TS. Temporary Detection is described and is paid for under Item # 1111201A - Temporary Detection (Site No. 1)

#### Emergency Vehicle Pre-emption System (EVPS)

The Contractor shall furnish, install, maintain, relocate, and remove the equipment necessary to keep the existing EVPS operational as shown on the plan. The Contractor shall not disconnect or alter the EVPS without the knowledge and concurrence of the Engineer and the EVPS owner. The Contractor shall schedule all EVPS relocations so that the system is out of service only when the Contractor is actively working. The Contractor shall ensure EVPS is returned to service and is completely operational at the end of the work day and shall keep the EVPS owner apprised of all changes to the EVPS.

#### Coordination

The Contractor shall furnish, install, maintain, relocate, and remove the equipment necessary to keep the intersection coordinated to adjacent signals as shown on the plan. The Contractor shall not disconnect the interconnect without the approval of the Engineer.

- Closed Loop System: If it is necessary to disconnect the communication cable, the Contractor will notify the Engineer and the Bridgeport Operation Center (BOC) or the Newington Operation Center (NOC) prior to disconnect and also after it is reconnected.
- Time Base System: The Contractor shall program and synchronize all Time Clock/Time Base Coordination (TC/TBC) units as necessary.

#### Maintenance

Once TS is in effect, the Contractor shall assume all maintenance responsibilities of the entire installation in accordance with Section 1.07.12 of the Standard Specifications. The Contractor shall notify the Engineer for the project records the date that Temporary Signalization begins. The Contractor shall coordinate with the Engineer to notify the following parties that maintenance responsibility has been transferred to the Contractor:

Signal Owner

CT DOT Electrical Maintenance Office or

Town Representative

Local Police Department

The Contractor shall provide the Engineer a list of telephone numbers of personnel who will be on-call during TS and shall respond to traffic signal malfunctions by having a

representative at the site within three hours from the initial contact. Any traffic signal malfunction shall be made operational according to plan within twenty-four (24) hours.

If the Engineer determines that the nature of a malfunction requires immediate attention and/or the Contractor does not respond within three (3) hours, then an alternate maintenance service will be called to repair the signal. Expenses incurred by the alternate maintenance service for each call will be deducted from monies due to the Contractor with a minimum deduction of \$1,000. The alternate maintenance service may be the owner of the signal or another qualified electrical contractor.

#### Duration

Temporary Signalization shall commence when the Contractor begins physical work at a particular intersection.

- a) For intersections with a State furnished controller, TS terminates when the inspection of the permanent signal is complete and operational and is accepted by the Engineer.
- b) For intersections with a Contractor furnished controller, Temporary Signalization terminates at the beginning of the 30 day test period for the permanent signal.

#### Ownership

The Contractor shall remove and deliver any existing equipment that is designated as salvage to its original owner upon completion of use. Any temporary equipment supplied by the Contractor shall be removed by the Contractor unless noted otherwise.

#### **Method of Measurement:**

Temporary Signalization (TS) shall be measured for payment as follows:

Fifty percent (50%) shall be paid when the TS for that site is operational as shown on the plan and to the satisfaction of the Engineer.

Fifty percent (50%) shall be paid upon termination of the TS as described herein.

#### **Basis of Payment:**

This work shall be paid at the contract Lump Sum price for "Temporary Signalization (Site No. 1)". This price includes the preliminary inspection, TS plan for each stage/phase, furnishing, installing, maintaining, relocating and revising traffic signal equipment, controller assembly modifications, controller unit program changes such as phasing and timing, removing existing, temporary, and proposed traffic signal equipment, arrangements with utility companies, towns or cities including the fees necessary for electric and telephone service, clearing and grubbing, earthwork and grading, area restoration and all necessary hardware, materials, labor, and work incidental thereto.

All material and work for signing and pavement markings is paid for under the appropriate Contract items.

All material and work necessary for vehicle and pedestrian detection for TS is paid for under item 1111201A - Temporary Detection (Site No. 1).

All Contractor supplied items that will remain the Contractor's property shall be included in the contract Lump Sum price for "Temporary Signalization."

Any items installed as part of the permanent installation will be paid for under those separate pay items in the Contract.

<u>Pay Item</u>	<u>Pay Unit</u>
Temporary Signalization (Site No. 1)	L.S.

## **ITEM #1206023A - REMOVAL AND RELOCATION OF EXISTING SIGNS**

Section 12.06 is supplemented as follows:

### **Article 12.06.01 – Description is supplemented with the following:**

Work under this item shall consist of the removal and/or relocation of designated side-mounted extruded aluminum and sheet aluminum signs, sign posts, sign supports, and foundations where indicated on the plans or as directed by the Engineer. Work under this item shall also include furnishing and installing new sign posts and associated hardware for signs designated for relocation.

### **Article 12.06.03 – Construction Methods is supplemented with the following:**

The Contractor shall take care during the removal and relocation of existing signs, sign posts, and sign supports that are to be relocated so that they are not damaged. Any material that is damaged shall be replaced by the Contractor at no cost to the State.

Foundations and other materials designated for removal shall be removed and disposed of by the Contractor as directed by the Engineer and in accordance with existing standards for Removal of Existing Signing.

Sheet aluminum signs designated for relocation are to be re-installed on new sign posts.

### **Article 12.06.04 – Method of Measurement is supplemented with the following:**

Payment under Removal and Relocation of Existing Signs shall be at the contract lump sum price which shall include all extruded aluminum and sheet aluminum signs, sign posts, and sign supports designated for relocation, all new sign posts and associated hardware for signs designated for relocation, all extruded aluminum signs, sheet aluminum signs, sign posts and sign supports designated for scrap, and foundations and other materials designated for removal and disposal, and all work and equipment required.

### **Article 12.06.05 – Basis of Payment is supplemented with the following:**

This work will be paid for at the contract lump sum price for “Removal and Relocation of Existing Signs” which price shall include relocating designated extruded aluminum and sheet aluminum signs, sign posts, and sign supports, providing new posts and associated hardware for relocated signs, removing and disposing of foundations and other materials, and all equipment, material, tools and labor incidental thereto. This price shall also include removing, loading, transporting, and unloading of extruded aluminum signs, sheet aluminum signs, sign posts, and sign supports designated for scrap and all equipment, material, tools and labor incidental thereto.

<u>Pay Item</u>	<u>Pay Unit</u>
Removal and Relocation of Existing Signs	L.S.

**ITEM #1208931A – SIGN FACE - SHEET ALUMINUM (TYPE IX RETROREFLECTIVE SHEETING)**

*Section 12.08 is supplemented and amended as follows:*

**12.08.01—Description:**

*Add the following:*

This item shall also include field testing of metal sign base posts as directed by the Engineer.

**12.08.03—Construction Methods:**

*Delete the last sentence and add the following:*

Metal sign base posts shall be whole and uncut. Sign base post embedment and reveal lengths shall be as shown on the plans. The Contractor shall drive the metal sign base posts by hand tools, by mechanical means or by auguring holes. If an obstruction is encountered while driving or placing the metal sign base post, the Contractor shall notify the Engineer who will determine whether the obstruction shall be removed, the sign base post or posts relocated, or the base post installation in ledge detail shall apply. Backfill shall be thoroughly tamped after the posts have been set level and plumb.

**Field Testing of Metal Sign Posts:** When the sign installations are complete, the Contractor shall notify the Engineer the Project is ready for field testing. Based on the number of posts in the Project, the Engineer will select random sign base posts which shall be removed by the Contractor for inspection and measurement by the Engineer. After such inspection is completed at each base post location, the Contractor shall restore or replace such portions of the work to the condition required by the Contract. Refer to the table in 12.08.05 for the number of posts to be field tested.

**12.08.04—Method of Measurement:**

*Add the following:*

The work required to expose and measure sign base post length and embedment depth using field testing methods, and restoration of such work, will not be measured for payment and shall be included in the general cost of the work.

**12.08.05—Basis of Payment:**

*Replace the entire Article with the following:*

This work will be paid for at the Contract unit price per square foot for “Sign Face - Sheet Aluminum” of the type specified complete in place, adjusted by multiplying by the applicable Pay Factor listed in the table below. The price for this work shall include the completed sign, metal sign post(s), span-mounted sign brackets and mast arm-mounted brackets, mounting hardware, including reinforcing plates, field testing, restoration and replacement of defective base post(s), and all materials, equipment, and work incidental thereto.

**Pay Factor Scale:** Work shall be considered defective whenever the base post length or base post embedment depth is less than the specified length by more than 2 inches. If the number of defects results in rejection, the Contractor shall remove and replace all metal sign base posts on the Project, at no cost to the Department.

**Number of Posts to be Tested and Pay Factors (Based on Number of Defects)**

<b>Number of Posts in Project =&gt;</b>	<b>51-100</b>	<b>101-250</b>	<b>251-1000</b>	<b>&gt;1000</b>
<b>Sample Size=&gt;</b>	<b>5 Posts</b>	<b>10 Posts</b>	<b>40 Posts</b>	<b>60 Posts</b>
0 Defects	1.0	1.0	1.025	1.025
1 Defect	0.9	0.95	0.975	0.983
2 Defects	Rejection	0.9	0.95	0.967
3 Defects	Rejection	Rejection	0.925	0.95
4 Defects	Rejection	Rejection	0.9	0.933
5 Defects	Rejection	Rejection	Rejection	0.917
6 Defects	Rejection	Rejection	Rejection	0.9
7 or more Defects	Rejection	Rejection	Rejection	Rejection

Note: Projects with 50 or fewer posts will not include field testing

## **ITEM #1507000A – PROTECTION AND SUPPORT OF EXISTING UTILITIES**

**Description:** Work under this item shall consist of the protection of the existing (2) 4” Altice and Comcast conduits attached to the bridge’s north fascia spandrel wall from damage during concrete surface repairs and removal of the existing concrete parapet in Stage I.

**Construction Methods:** (2) 4” Altice and Comcast conduits are currently attached to the bridge’s north fascia spandrel wall, below the existing parapet. These utilities may need to be protected in place during concrete surface repairs and demolition of the existing concrete parapet. The method of protection is to be determined by the Contractor. The Contractor shall submit stamped working drawings to the Engineer, Altice, and Comcast for review prior to beginning any concrete repair or demolition activities in the vicinity of the existing utilities.

**Method of Measurement:** This work will be paid for on a lump sum basis and, therefore, will not be measured for payment.

**Basis of Payment:** This work will be paid for at the contract lump sum price for “Protection and Support of Existing Utilities”, designed, installed, and removed, which price shall include materials, equipment, tools, labor, and work incidental thereto.

### **Pay Item**

Protection and Support of Existing Utilities

### **Pay Unit**

LS

## **PERMITS AND/OR REQUIRED PROVISIONS**

The following Permits and/or and Required Provisions follow this page are hereby made part of this Contract.

- **PERMITS AND/OR PERMIT APPLICATIONS**

Flood Management (General Certificate)

Coast Guard Construction Letter

CT DEEP General permit for Coastal Maintenance

- **Construction Contracts - Required Contract Provisions (FHWA Funded Contracts)**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
First Coast Guard District

One South Street  
Battery Building  
New York, NY 10004-1466  
Staff Symbol: dpb  
Phone: (212) 514-4335  
Email: Stephanie.E.Lopez@uscg.mil

16594  
January 17, 2020

State of Connecticut Department of Transportation  
Attn: Mr. Rabih M. Barakat, P.E.  
Transportation Principal Engineer  
2800 Berlin Turnpike, P.O. Box 317546  
Newington, CT 06131-7546

Dear Mr. Barakat:

We have completed our review of the work schedule and plans submitted for the Pedestrian and Bicyclist Access Improvements to the Bridge Street Bridge (Route 712) construction across the Housatonic River, mile 13.8, between Shelton and Derby, Connecticut.

Approval is granted conditioned upon full compliance with all applicable stipulations in the attached enclosure (1) entitled "General Construction Requirements."

These stipulations are based on the facts you have provided presently; however, additional requirements may be required if additional information or conditions not anticipated warrant.

This bridge work authorization does not relieve the project proponent of the responsibility to comply with applicable state, local or other federal requirements for this project.

Please contact me at (212) 514-4335 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie E. Lopez".

Stephanie E. Lopez  
Bridge Management Specialist  
U.S. Coast Guard  
By direction

Encl: (1) General Construction Requirements  
Copy: Coast Guard Sector Long Island Sound, Waterways Management

## U.S. Coast Guard Bridge Administration

### GENERAL CONSTRUCTION REQUIREMENTS

1. All bridge closures, or bridge operating schedule changes, must be requested in writing, 90 days in advance, from the First Coast Guard District Bridge Branch Office. No channel restrictions, or vertical clearance reductions may be made without written approval from the above office.
2. Waterway closures/restrictions, barge placement or safety zones must also be requested a minimum of 90-days in advance. Please contact: USCG Sector Long Island Sound, 120 Woodward Ave., New Haven, CT 06512-3628. Ph: (203) 468-4596.
3. All submissions to the Coast Guard for review and approval must first be approved by the owner of the bridge or their authorized agent. All submission of plans, scope of work, and schedules of operation must be sent to the First Coast Guard District, Bridge Branch Office.
4. At least 30 days prior to commencement of any work, we must have for our review, a copy of the construction plans, contractor's schedule, preferably depicted in a time line graphic format, and the contractor's daily hours of operation. The construction plan package must show the following: **(1)** a plan of the entire waterway area in the vicinity of the project. **(2)** The location of work barges during working and off-hours. **(3)** In addition, a drawing must be included, if applicable, depicting any scaffolding or containment used indicating the location and the total vertical or horizontal channel reduction. All vertical clearance reductions below low steel or concrete under the bridge as a result of the use of scaffolding must be clearly detailed on the drawings shown in total feet. **(4)** Emergency 24 hour telephone numbers for all responsible individuals for this project must be submitted to this office before any phase of construction begins in case of an emergency situation during off-hours.
5. Scaffolding used under ANY span of the bridge must be lighted with constant burning red lights every 50 feet and on all corners. The placement of scaffolding must not interfere with the ability of a moveable bridge to open for vessel traffic. Moveable bridges must continue to operate according to their normal schedule unless special drawbridge operation regulation changes have been requested. Warning signs must be posted on both sides of the bridge, visible for a 1-mile range, to warn mariners of the vertical clearance reduction. The signs shall face upstream and downstream so as to draw the mariner's attention to the fact that the clearance has been reduced.
6. All barges placed in the waterway must be lighted with constant burning white lights on all four corners of the barge. The contractor is required to comply with all provisions of the Navigation Rules International-Inland, regarding the use of work barges or floating equipment in the waterway [www.navcen.uscg.gov](http://www.navcen.uscg.gov).
7. Placement of construction barges in the navigable channel shall be done so as to provide a minimum horizontal clearance reduction. Only one navigation channel of a swing bridge may be blocked by work equipment at anytime. Barges must be moved out of the navigable channel after working hours unless approved in writing by the USCG.

CT

8. Barges held in place by anchor lines must be marked by anchor buoys, which should be lighted.
9. The vertical and horizontal clearances through the navigable channel of the completed structure (as-built clearances) shall be certified in writing to this office by a responsible official of the permittee, a licensed surveyor or a registered professional engineer upon completion of bridge work. As built clearances consist of: vertical clearance in the navigational channel measured from mean high and mean low water to the lowest point of the superstructure; horizontal clearance through the navigational channel between piers or fenders measured normal to the axis of the channel. Documentation shall state the horizontal and vertical datum (e.g., NAVD88) used for all measurements. Please contact this office if there are questions regarding the required clearance data for specific bridge types, i.e. fixed or movable.
10. The on-scene contractor must have a VHF-FM marine radio set to the bridge communication channels 16/13 or the designated channel for the bridge. Additional marine radios monitoring the above channels must also be maintained at the main control of any floating equipment or barges on station.
11. Preventive measures must be taken to prevent any hot work, debris, or construction material from entering the waterway. This includes sandblasting material, paint, and any concrete work by-products. Welding and burning must cease upon approach of a vessel and shall not start again until the vessel has passed the bridge.
12. The project manager must contact the Coast Guard Sector Long Island Sound via marine radio before commencement of any and after completion of any Hot Work. A cell phone back-up may be used to contact the above Coast Guard Unit at (203) 468-4401.
13. If permanent bridge navigational lighting cannot be maintained operational during any phase of this project, temporary battery/power lights must be installed at the same locations. These temporary lights must be visible for a distance of **2,000 yards on 90% of the nights of the year**. Generally, a lamp of **(50 candela)** will meet these requirements. Plans for temporary lighting shall be submitted to this office for written approval. Deviations from the approved **temporary lighting shall be permitted only upon written authorization from this office.**
14. **All newly constructed bridge piers, or those in the process of demolition, must be lighted with either red or white flashing (60 flashes per minute) lights. All cofferdams used during construction must also be lighted with red or white flashing (60 flashes per minute) on all four corners.**
15. Bridge protective fenders shall not be constructed or rebuilt with any metal surfaces on the rubbing face of the fender system. All bolts, spikes, or other metal fastening devices must be countersunk. Metal splicing plates, if used, shall be mounted on back of outer wales.
16. All piles including those previously damaged or broken that are not being used in the new or repaired fender shall be extracted rather than cut off at the mud line. Upon completion of all fender repairs a bottom sweep is required to determine if any piles or debris are present in the waterway. A wire-drag sweep or side-scan sonar is the preferred method.
17. It is the owners' responsibility to ensure that channel depths are not affected by this work. Any material, machinery or equipment lost, dumped, thrown into, or otherwise entering the

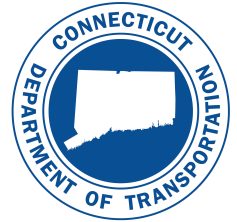
waterway must be removed immediately. If immediate removal is impractical and the object entering the waterway could possibly obstruct or hazard navigation, the object must be marked immediately to protect navigation and the Coast Guard shall be notified as soon as possible. Such notification shall give the location and type of obstruction and the navigational markings installed.

18. Spillage of oil and hazardous substances is specifically prohibited by Section 311 of the Clean Water Act, as amended. Measures including properly maintaining construction equipment, designating fuel/hazardous substances handling areas to allow spills to be contained before reaching the waterway, instructing personnel not to dispose of oil/hazardous substances into drains or into the waterway directly, and other necessary procedures should be implemented to prevent spillage. If oil/hazardous substances are spilled into the waterway in spite of such planning, the U.S. Coast Guard is to be notified immediately at 800-424-8802. An adequate supply of absorbent material should be readily accessible to soak up any possible spillage pending Coast Guard arrival. The use of chemical dispersing agents and emulsifiers is not authorized without prior, specific, federal approval.
19. The bridge owner/contractor shall provide any and all necessary equipment and personnel to determine the presence of any "suspected" obstructions in the waterway at any time either during or following the completion of bridge construction or demolition operations.
20. The owner or registered professional engineer shall certify that the waterway depths have not been impaired and that the waterway is clear of materials or debris resulting from bridge construction or demolition.
21. This approval may be revoked and/or civil penalties imposed for failure to ensure that the above listed stipulations are adhered to or if work is determined to hazard or impair navigation.
22. This bridge work authorization does not relieve the project proponent of the responsibility to comply with applicable state, local or other federal requirements for this project.

# Eligibility Determination Form

## DEEP General Permit for Coastal Maintenance

DEEP-OLISP-GP-2015-02



**Authorization under this permit does not obviate the need for other State or Federal Permits as may be required for the proposed activities.**

Project Number:

Bridge Number:

Waterway:

Location (Route/Town):

Brief Project Description:

Office:

Contact:

The above referenced project has been determined to be eligible for Authorization under the *General Permit for Coastal Maintenance Section 3(a)(5) "maintenance activities performed on certain Department of Transportation infrastructure"*. This determination has been made by the Office of Environmental Planning, Water/Natural Resources Unit.

Project activities which are eligible for coverage under this Authorization under Section 3(a)(5) are:

- A – Bridge Deck Drains
- B – Bridge Painting
- C – Bridge Mechanical, Electrical, and Operational Repairs
- D – Bridge Superstructure
- E – Bridge Decks
- F – Bridge Supports
- G – Bridge Scour
- H – Walls & Abutment
- I – Pipes & Culverts
- J – Outlet Protection
- K – Shoreline Protection (required post-construction as-built survey)
- L – Access
- M – Rail Infrastructure

### Required Coordination

Fisheries Coordination/Concurrence date:

Special Requirements:

U.S. Coast Guard Coordination date:

Special Requirements:

NDDDB Coordination: Species identified:

Special Requirements

As built survey required within 90 days of project completion

### Special Conditions

**SPECIAL CONDITIONS FOUND IN SECTION 5(e) ITEMS 1-19 ARE DIRECTLY APPLICABLE TO THIS AUTHORIZATION AND THE CONTRACT SHALL INCORPORATE CONTRACT ITEMS/SPECIAL PROVISIONS AS NECESSARY TO MEET THE REQUIRED CONDITIONS.**

### OEP Staff Certification:

**District Reporting Requirement:** Each District is responsible for the yearly reporting of Construction Projects authorized under this General Permit. Reporting is to be made to the Office of Environmental Planning, Water/Noise Compliance Unit on forms prescribed by that Office.

## **Project Description**

Bridge No. 01659 supports Route 712 (Bridge Street) over the Housatonic River in the cities of Shelton and Derby. The structure is located approximately 100 feet west of the Route 34 (Main Street) intersection in the city of Derby.

The existing bridge, constructed in 1918, consists of a five-span, reinforced concrete arch superstructure supported by reinforced concrete abutments and piers. The bridge has an overall length of approximately 471 feet and a curb-to-curb width of approximately 43 feet, consisting of an 11-foot westbound travel lane with a 9-foot 1-inch shoulder and a variable eastbound travel lane and shoulder. Two 10-foot 6-inch sidewalks with decorative concrete parapets exist on both sides of the bridge. The concrete parapets are 44-inches high and 16-inches wide, with decorative pilasters and an exposed aggregate surface. The bridge is in satisfactory condition (Rating = 6), with cracking in the bituminous pavement, spalls with exposed rebar in the sidewalks, and random cracking and delaminated areas along the parapets.

The purpose and need for this project is to improve pedestrian and bicycle access along Bridge No. 01659 while addressing the condition of the existing bridge. The proposed multi-modal enhancements include reconfiguring the existing roadway to include a 5-foot sidewalk on the north side of the bridge, a 37-foot roadway, and a 17-foot 10-inch bike-pedestrian plaza on the south side of the bridge. The proposed roadway will consist of three 11-foot travel lanes and two 2-foot shoulders. The bike-pedestrian plaza will consist of two 5-foot bidirectional bike lanes and a 7-foot 10-inch sidewalk, constructed on a raised shelf and separated from the roadway by a 4-foot buffer with planters. Bridge Street SE is to be closed to vehicular traffic with the installation of bollards and bike-pedestrian improvements will be constructed, including a 5-foot sidewalk and two 5-foot bidirectional bike lanes. The existing concrete parapets will be reconstructed, and open metal railing will be installed between the decorative concrete pilasters to meet standard height requirements. The existing lighting will be replaced with period-style lights. The proposed bridge rehabilitation involves resurfacing the bridge deck, making minor structural repairs to the underside of the arches, and reconstructing approximately 100-feet of the roadway. A truck mounted under-bridge access platform will be utilized to perform the proposed repairs to the underside of the arches.

The project site lies within the Housatonic River drainage basin (6000). Review of the Connecticut Department of Energy and Environmental Protection's (CT DEEP) Aquifer Protection Area maps (dated July 3, 2019) indicate that the project site is not located within an aquifer protection area. Review of the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) indicates that the project site is located within a FEMA mapped flood hazard area.

Review of CT DEEP's Natural Diversity Database (NDDB) for Shelton and Derby indicates that the project site is located within an area identified as a known habitat for State and Federally listed species or significant natural communities (map dated June 2019). The Housatonic River provides habitat for numerous listed species and is designated as a critical habitat for the Atlantic Sturgeon by the National Marine Fisheries. Due to the environmentally sensitive nature of the project site, careful considerations to the timing of construction will be included with emphasis placed on minimal disturbance to wildlife and the implementation of proper best management practices.

Traffic will be maintained along Route 712 by utilizing temporary lane shifts and shoulder closures. One lane of traffic in each direction will be maintained at all times during construction. One sidewalk will remain open for pedestrian traffic at all times during construction.

Construction for the subject project is anticipated to begin in April 2021 and end in November 2022. The estimated construction cost for the subject project is \$6.9 Million.

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
First Coast Guard District

One South Street  
Battery Building  
New York, NY 10004-1466  
Staff Symbol: dpb  
Phone: (212) 514-4335  
Email: Stephanie.E.Lopez@uscg.mil

16594  
January 17, 2020

State of Connecticut Department of Transportation  
Attn: Mr. Rabih M. Barakat, P.E.  
Transportation Principal Engineer  
2800 Berlin Turnpike, P.O. Box 317546  
Newington, CT 06131-7546

Dear Mr. Barakat:

We have completed our review of the work schedule and plans submitted for the Pedestrian and Bicyclist Access Improvements to the Bridge Street Bridge (Route 712) construction across the Housatonic River, mile 13.8, between Shelton and Derby, Connecticut.

Approval is granted conditioned upon full compliance with all applicable stipulations in the attached enclosure (1) entitled "General Construction Requirements."

These stipulations are based on the facts you have provided presently; however, additional requirements may be required if additional information or conditions not anticipated warrant.

This bridge work authorization does not relieve the project proponent of the responsibility to comply with applicable state, local or other federal requirements for this project.

Please contact me at (212) 514-4335 if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Stephanie E. Lopez".

Stephanie E. Lopez  
Bridge Management Specialist  
U.S. Coast Guard  
By direction

Encl: (1) General Construction Requirements  
Copy: Coast Guard Sector Long Island Sound, Waterways Management



Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

October 11, 2018

Marilyn Gould  
CT Department of Transportation  
2800 Berlin Turnpike  
Newington, CT 06111  
[Marilyn.gould@ct.gov](mailto:Marilyn.gould@ct.gov)

Project: CTDOT Project 126-174, Derby-Shelton Bridge No. 01659 Pedestrian and Bicyclist Access Improvements, Bridge Street over the Housatonic River in Derby & Shelton, Connecticut  
NDDB Determination No.: 201810674

Dear Marilyn,

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map provided for CTDOT Project 126-174, Derby-Shelton Bridge No. 01659 Pedestrian and Bicyclist Access Improvements, Bridge Street over the Housatonic River in Derby & Shelton t, Connecticut. According to our information, there are records for Federal and State Endangered Atlantic sturgeon (*Acipenser oxyrinchus*) in the vicinity of this project.

Please be advised that a DEEP Fisheries Biologist will review the permit applications you may submit to DEEP regulatory programs to determine if your project could adversely affect Atlantic sturgeon. DEEP Fisheries Biologists are routinely involved in pre-application consultations with regulatory staff and applicants in order to identify potential fisheries issues and work with applicants to mitigate negative effects, including to endangered species. If you have not already talked with a Fisheries Biologist about your project, you may contact the Permit Analyst assigned to process your application for further information, including the contact information for the Fisheries Biologist assigned to review your application. This determination is good for two years. Please re-submit an NDDB Request for Review if the scope of work changes or if work has not begun on this project October 11, 2020.

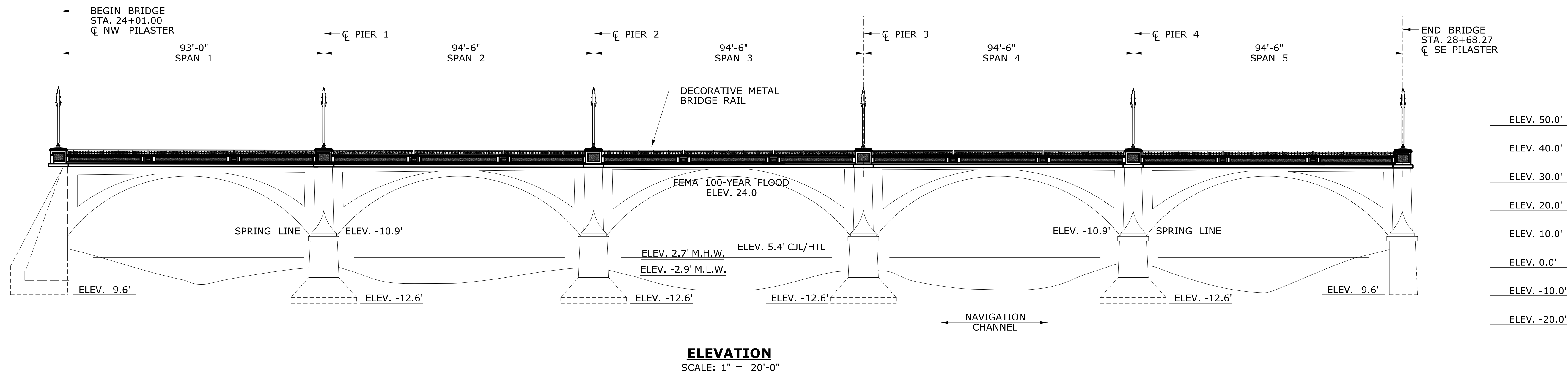
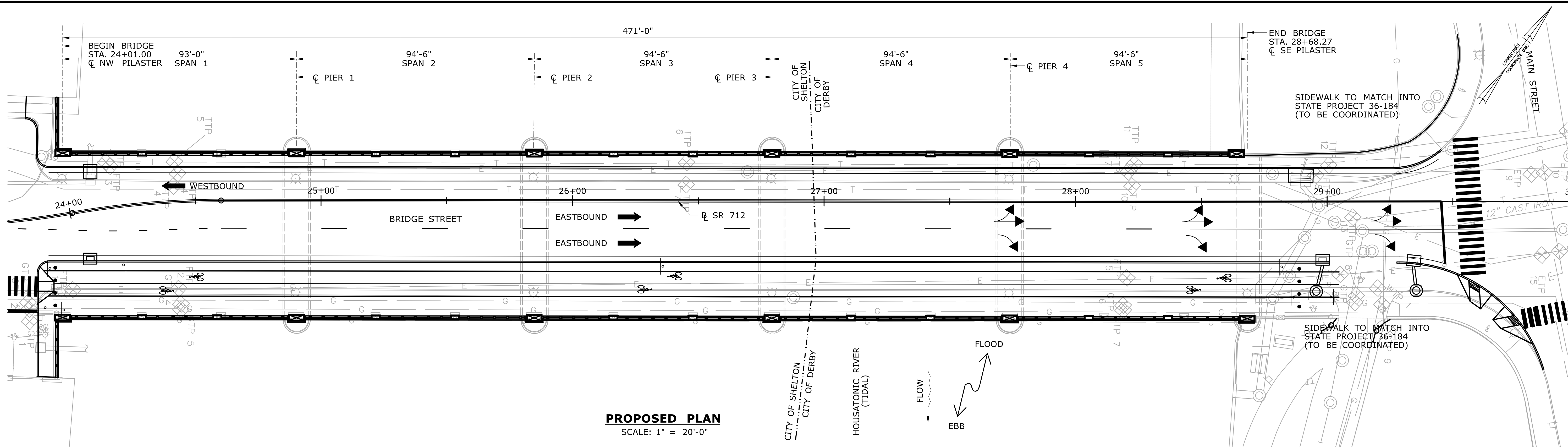
Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. The result of this review does not preclude the possibility that listed species may be encountered on site and that additional action may be necessary to remain in compliance with certain state permits.

Please contact me if you have further questions at (860) 424-3592, or [dawn.mckay@ct.gov](mailto:dawn.mckay@ct.gov) . Thank you for consulting the Natural Diversity Data Base.


Sincerely,

Dawn M. McKay  
Environmental Analyst 3





ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: OCTOBER 25, 2019

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 10/24/2019	DESIGNER/DRAFTER: A. ST. GERMAIN	 Filename: ...\\Envir. Comp\\126-174_PMT-02.dgn	SIGNATURE/ BLOCK:	PROJECT TITLE: <b>DERBY-SHELTON BRIDGE (BR. 01659) PEDESTRIAN AND BICYCLIST ACCESS IMPROVEMENTS</b>	TOWN: <b>SHELTON AND DERBY</b> DRAWING TITLE: <b>GENERAL PLAN AND ELEVATION</b>	PROJECT NO. <b>126-174</b> DRAWING NO. <b>PMT-02</b> SHEET NO.
					CHECKED BY: M. HASHEM					
					SCALE AS NOTED					

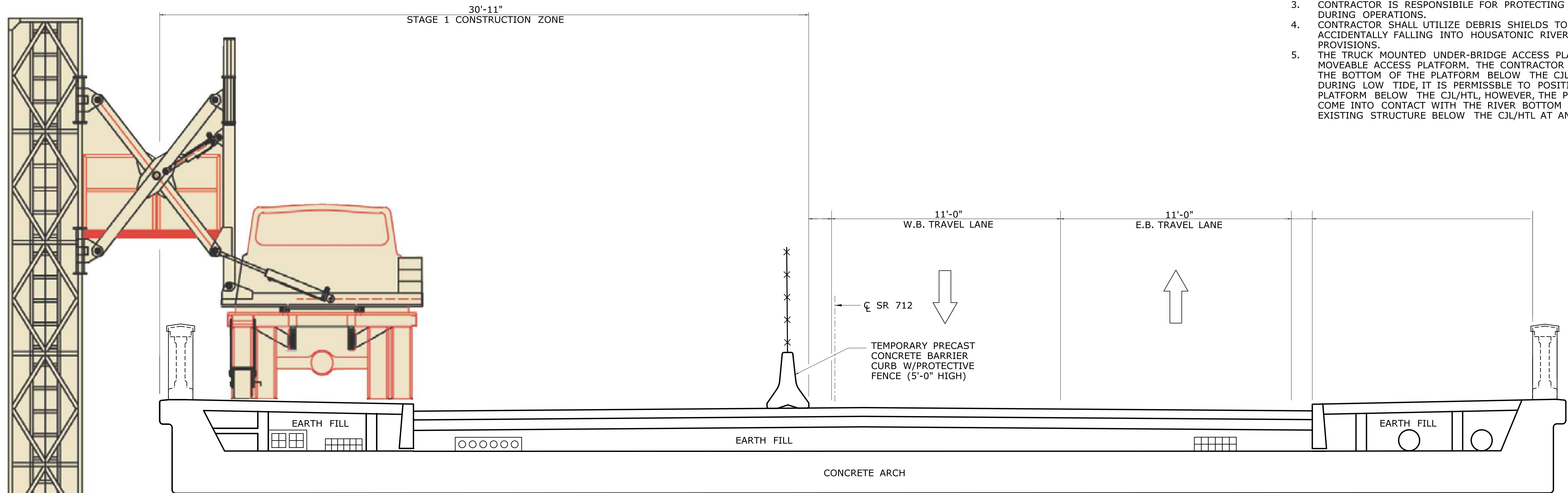
1. CONTRACTOR SHALL DESIGN TEMPORARY WORK PLATFORM SYSTEM.
2. SYSTEM SHALL HAVE A SOLID FLOOR AND SOLID WALLS AND/OR DEBRIS SHIELD TO PREVENT DEBRIS FROM FALLING INTO RIVER.
3. SOLID WALL AND/OR DEBRIS SHIELD SHALL EXTEND MIN. 2'-0" ABOVE TOP OF PARAPET.



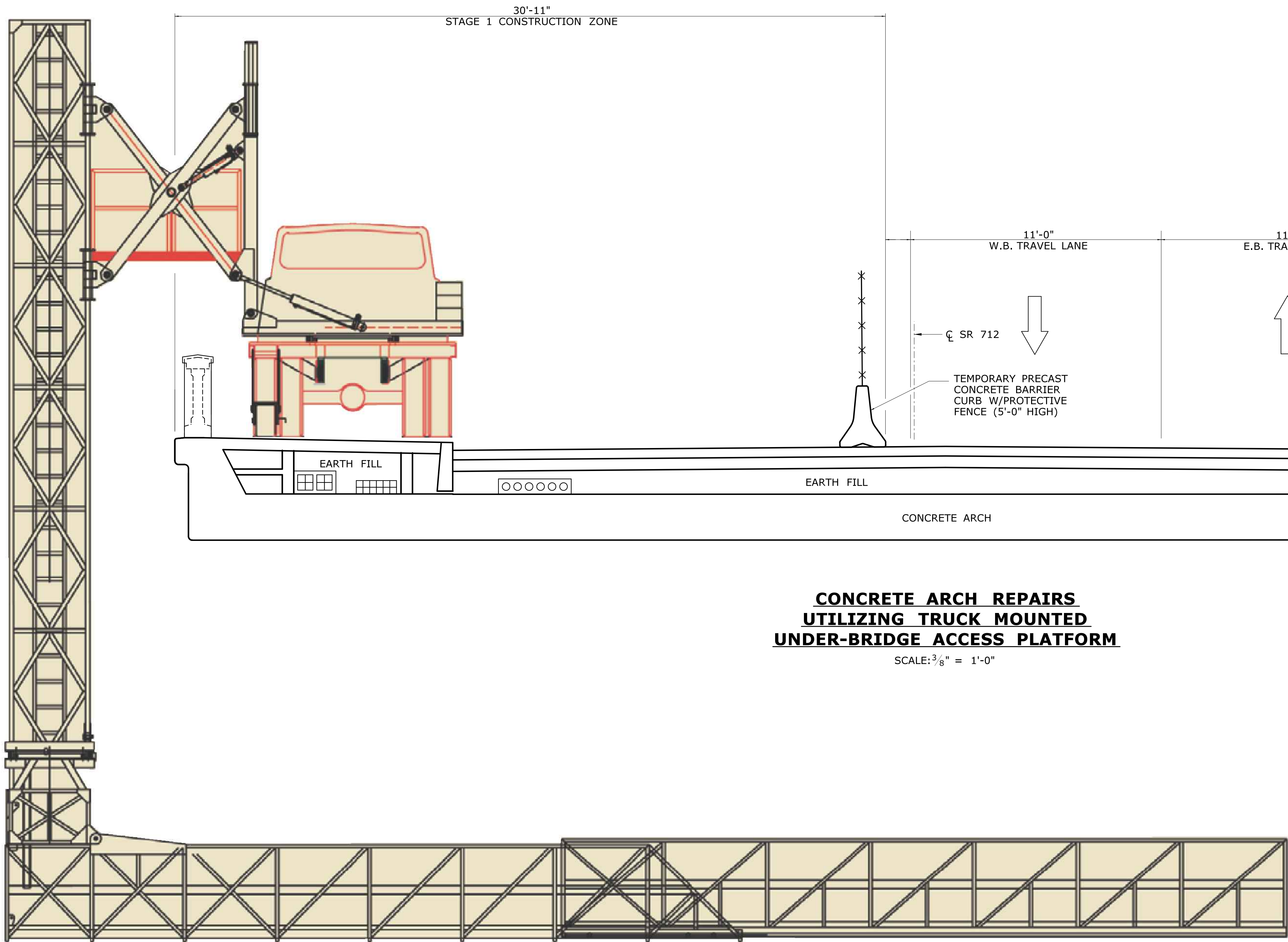
**ENVIRONMENTAL PERMIT PLANS**  
**PLAN DATE: OCTOBER 25, 2019**

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- NOTES:**
- 1. EXISTING LIGHT STANDARDS ARE NOT SHOWN FOR CLARITY. PLACE TRUCK BETWEEN LIGHT STANDARDS TO MAINTAIN FULL ACCESS TO BRIDGE UNDERSIDE BY UTILIZING MULTI-DIRECTIONAL ADJUSTING UNIT.
  - 2. CONTRACTOR SHALL PERFORM THE CONCRETE REPAIR WORK DURING PRE-STAGE I.
  - 3. CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES DURING OPERATIONS.
  - 4. CONTRACTOR SHALL UTILIZE DEBRIS SHIELDS TO PREVENT DEBRIS FROM ACCIDENTALLY FALLING INTO HOUSATONIC RIVER BELOW. SEE SPECIAL PROVISIONS.
  - 5. THE TRUCK MOUNTED UNDER-BRIDGE ACCESS PLATFORM IS A HIGHLY MOVEABLE ACCESS PLATFORM. THE CONTRACTOR SHALL NOT POSITION THE BOTTOM OF THE PLATFORM BELOW THE CJL/HTL DURING HIGH TIDE. DURING LOW TIDE, IT IS PERMISSIBLE TO POSITION THE BOTTOM OF THE PLATFORM BELOW THE CJL/HTL, HOWEVER, THE PLATFORM SHALL NOT COME INTO CONTACT WITH THE RIVER BOTTOM OR ANY PORTION OF THE EXISTING STRUCTURE BELOW THE CJL/HTL AT ANY TIME.



**CONCRETE ARCH REPAIRS**  
**UTILIZING TRUCK MOUNTED**  
**UNDER-BRIDGE ACCESS PLATFORM**  
SCALE:  $\frac{3}{8}$ " = 1'-0"



**ENVIRONMENTAL PERMIT PLANS**  
**PLAN DATE: OCTOBER 25, 2019**

				THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.	DESIGNER/DRAFTER: <b>A. ST. GERMAIN</b> CHECKED BY: <b>M. HASHEM</b>  SCALE AS NOTED		SIGNATURE/ BLOCK:	PROJECT TITLE:  <b>DERBY-SHELTON BRIDGE (BR. 01659) PEDESTRIAN AND BICYCLIST ACCESS IMPROVEMENTS</b>	TOWN:  <b>SHELTON AND DERBY</b> DRAWING TITLE: <b>CONCRETE REPAIR DETAILS 1 OF 6</b>	PROJECT NO. <b>126-174</b> DRAWING NO. <b>PMT-04</b> SHEET NO.
REV.	DATE	REVISION DESCRIPTION	SHEET NO.							

Filename: ...\\Envir\_Comp\\126-174\_PMT-04.dgn

L: LONG  
W: WIDE  
H: HIGH  
HA: HOLLOW AREA  
DP: DEEP  
SP: SPALL



1. THE DETERIORATION LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON LIMITED FIELD OBSERVATIONS AND 2018 BRIDGE SAFETY INSPECTION REPORT DATED 5/11/18. THE INFORMATION IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE. THE EXACT LOCATION AND LIMITS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.

[illegible]

**ENVIRONMENTAL PERMIT PLANS**  
**PLAN DATE: OCTOBER 25, 2019**

**DERBY-SHELTON BRIDGE  
(BR. 01659) PEDESTRIAN AND  
BICYCLIST ACCESS IMPROVEMENTS**

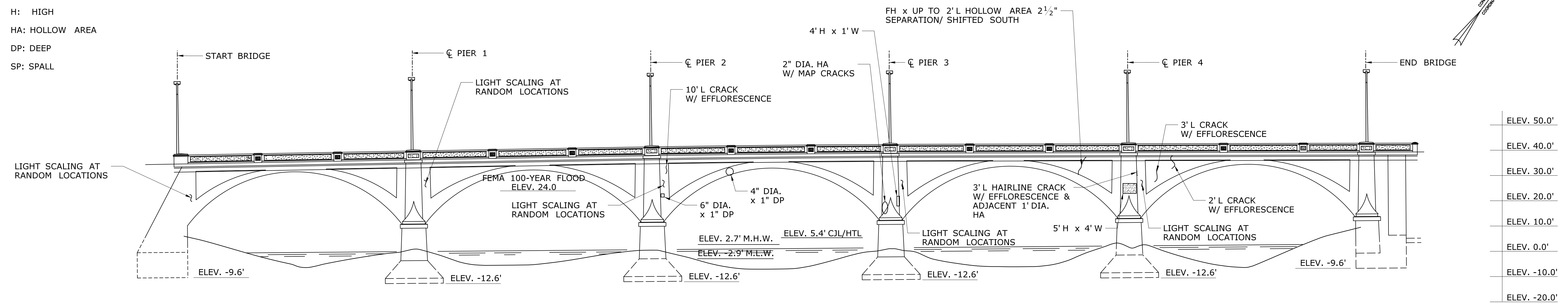
**SHELTON AND DERBY**

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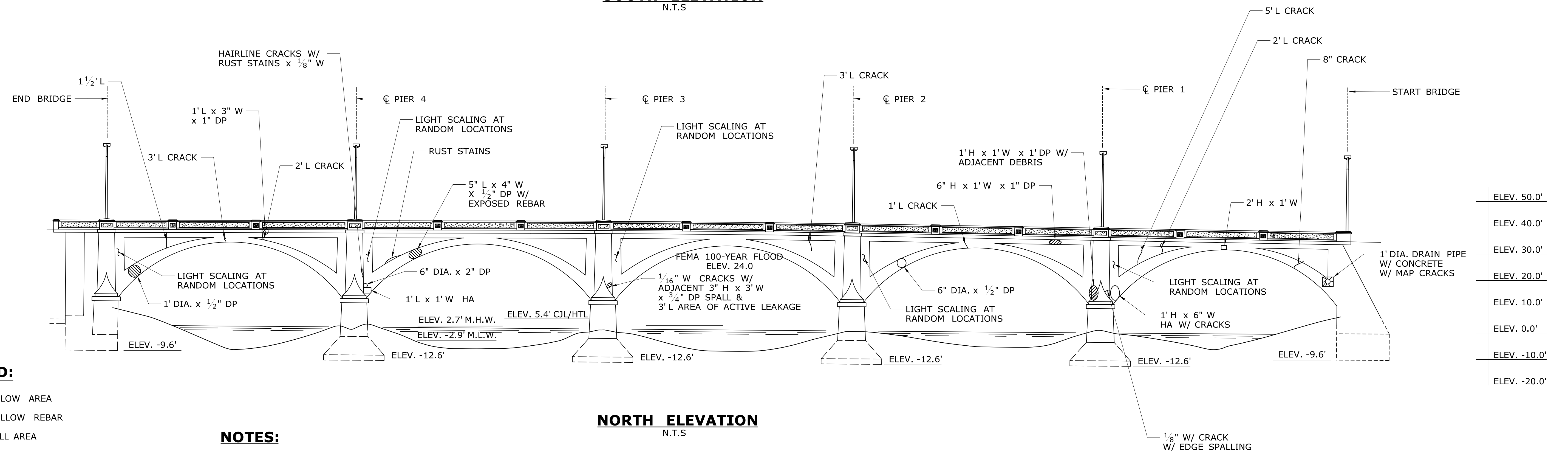
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**CONCRETE REPAIR  
DETAILS 2 OF 6**

## **ABBREVIATIONS**

L: LONG  
W: WIDE  
H: HIGH  
HA: HOLLOW AREA  
DP: DEEP  
SP: SPALL











**SOUTH ELEVATION**  
N.T.S



**NORTH ELEVATION**  
N.T.S

**LEGEND:**

- |   |                               |
|---|-------------------------------|
|  | HOLLOW AREA                   |
|  | SHALLOW REBAR                 |
|  | SPALL AREA                    |
|  | SPALL AREA WITH EXPOSED REBAR |
|  | MAPCRACKS                     |
|  | HAIRLINE CRACKS               |
|  | HONEYCOMB AREA                |
|  | SCALE AREA                    |

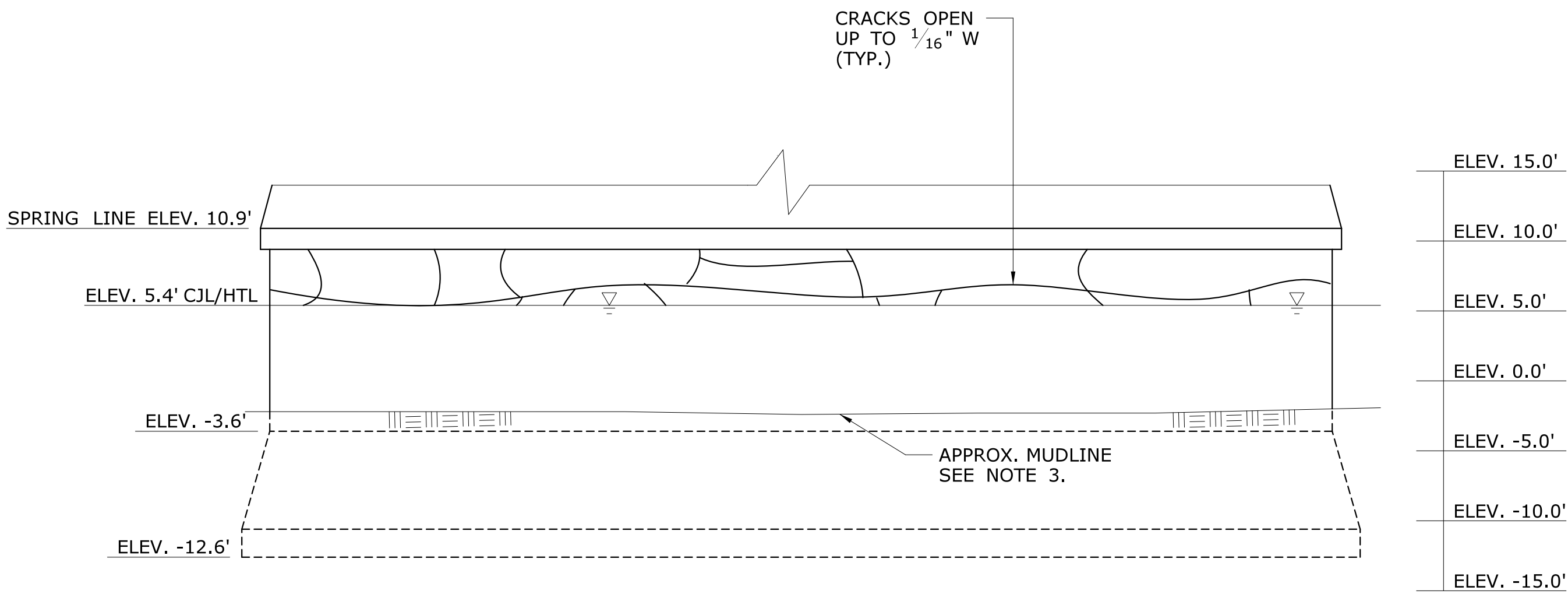
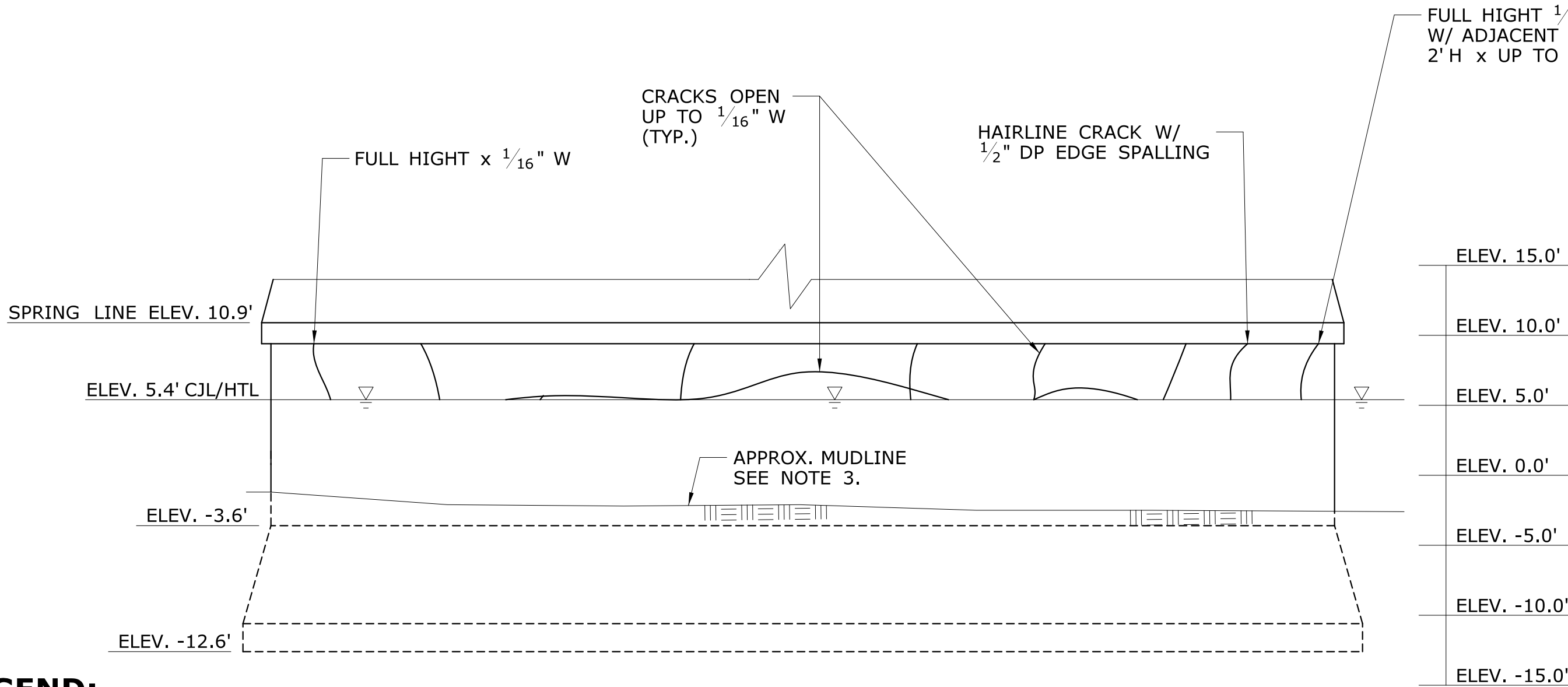
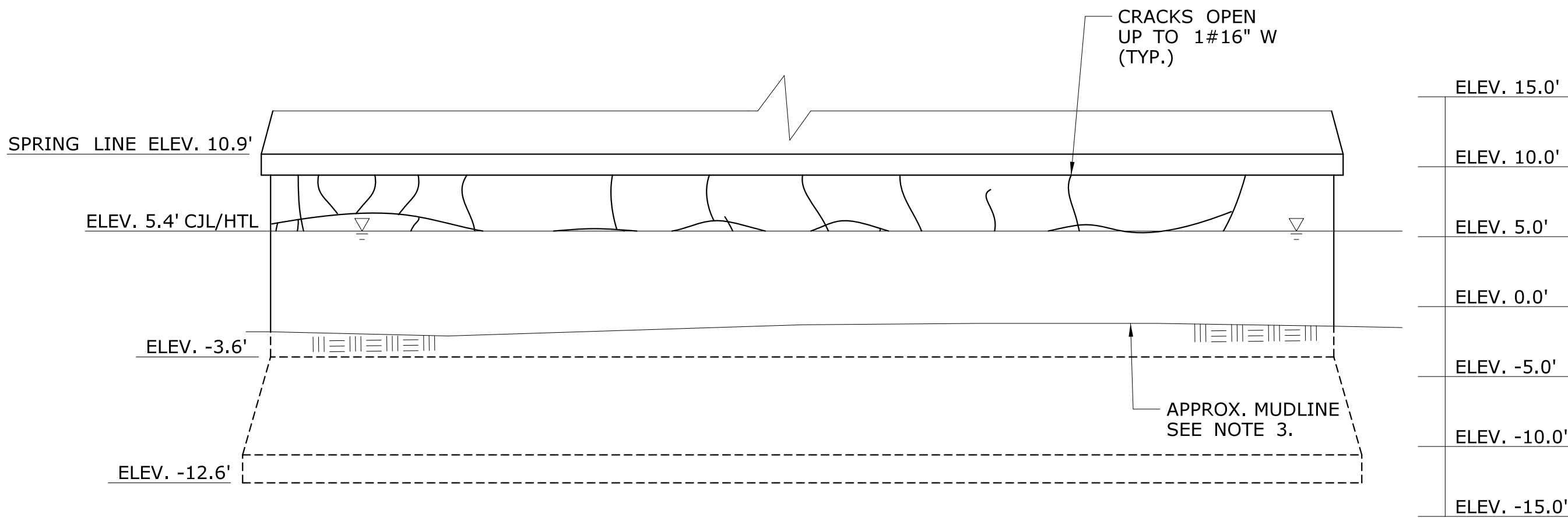
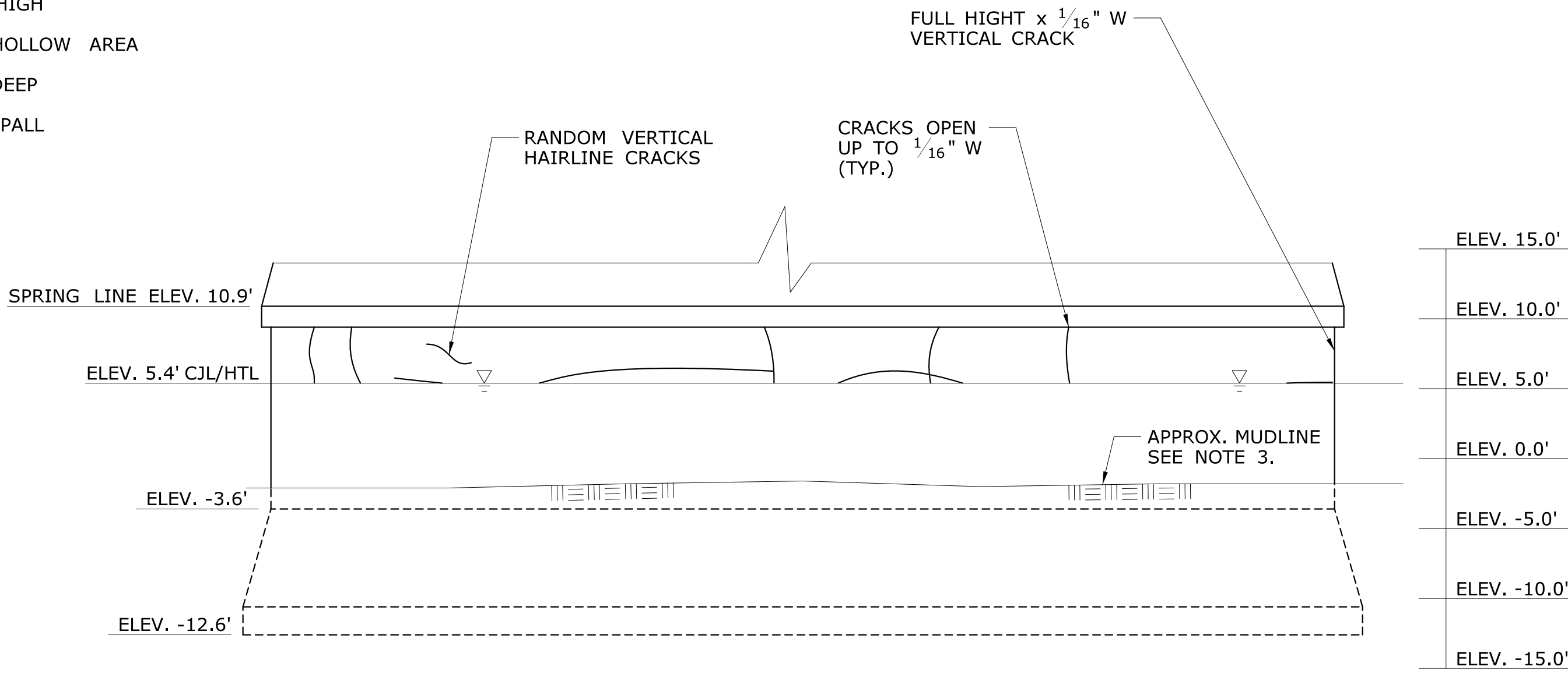
**NOTES:**

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[illegible]

ABBREVIATIONS

L: LONG  
W: WIDE  
H: HIGH  
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DP: DEEP  
SP: SPALL



LEGEND:


- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- HAIRLINE CRACKS
- HONEYCOMB AREA
- SCALE AREA

PIER 1 - EAST ELEVATION  
N.T.S.

NOTES:

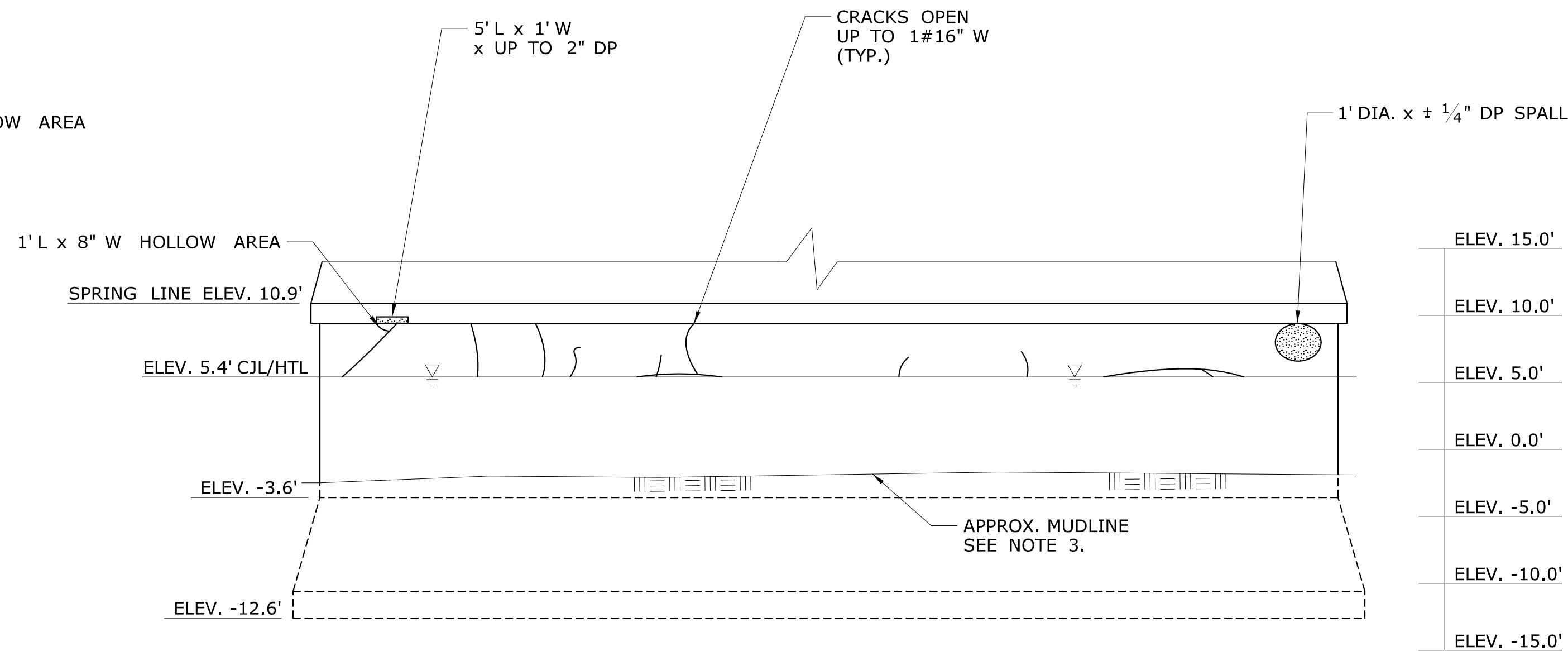
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- NO REPAIRS SHALL BE PERFORMED BELOW THE CJL/HTL.
- APPROXIMATE MUDLINE ELEVATIONS ARE TAKEN FROM 2018 UNDERWATER INSPECTION REPORT DATED 2/06/18.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: OCTOBER 25, 2019

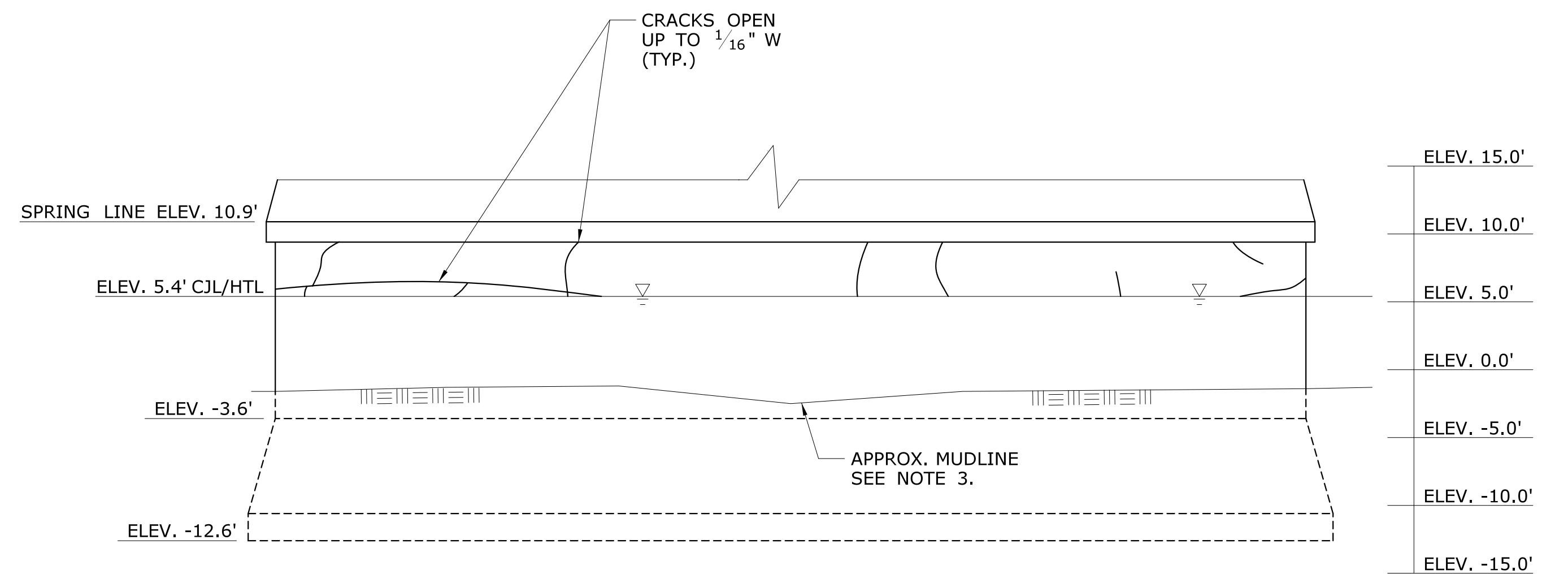
						THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.		DESIGNER/DRAFTER: A. ST. GERMAIN CHECKED BY: M. HASHEM  SCALE AS NOTED		 NAUGATUCK VALLEY COUNCIL of GOVERNMENTS		SIGNATURE/ BLOCK:		PROJECT TITLE:  <b>DERBY-SHELTON BRIDGE (BR. 01659) PEDESTRIAN AND BICYCLIST ACCESS IMPROVEMENTS</b>		TOWN:  <b>SHELTON AND DERBY</b>  DRAWING TITLE: <b>CONCRETE REPAIR DETAILS 4 OF 6</b>		PROJECT NO. <b>126-174</b> DRAWING NO. <b>PMT-07</b> SHEET NO.		
REV.	DATE	REVISION DESCRIPTION		SHEET NO.	Plotted Date: 10/24/2019				Filename: ...\\Envir. Comp\\126-174_PMT-07.dgn											

## **ABBREVIATIONS**

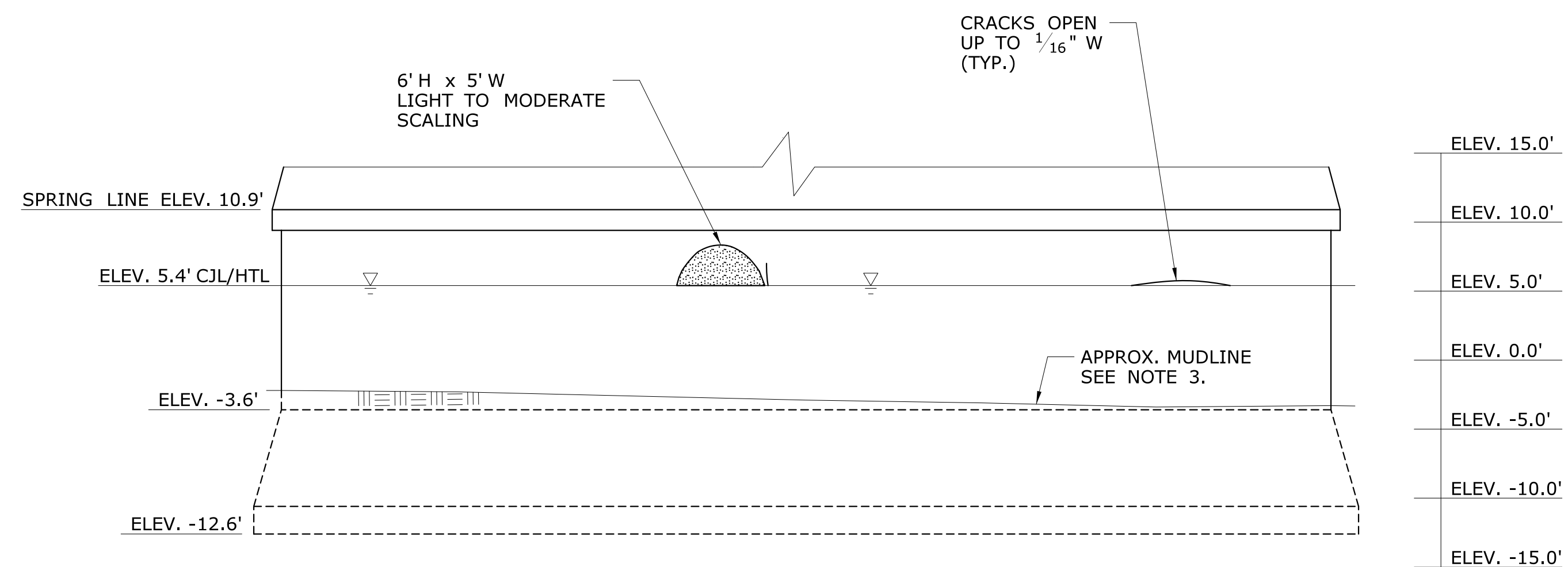
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DP: DEEP  
SP: SPALL



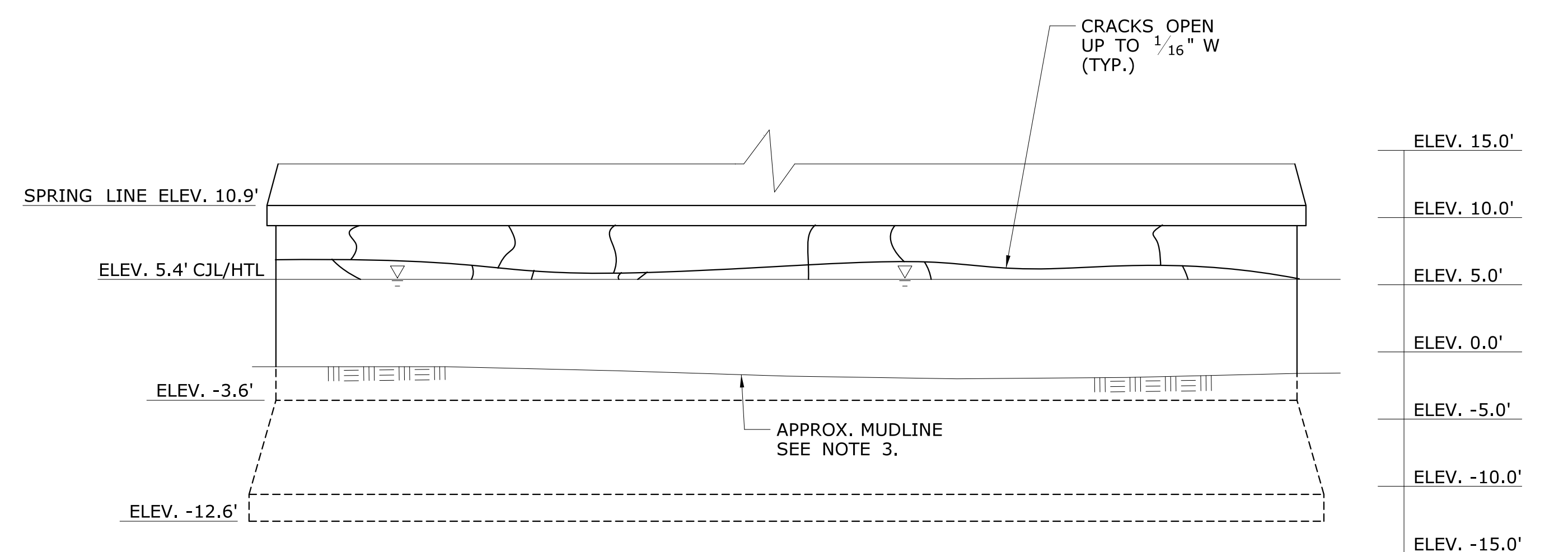
**PIER 3 - WEST ELEVATION**  
N.T.S



**PIER 4 - WEST ELEVATION**  
N.T.S



**PIER 3 - EAST ELEVATION**  
N.T.S



**PIER 4 - EAST ELEVATION**  
N.T.S

**LEGEND:**

- |   |                               |
|---|-------------------------------|
|  | HOLLOW AREA                   |
|  | SHALLOW REBAR                 |
|  | SPALL AREA                    |
|  | SPALL AREA WITH EXPOSED REBAR |
|  | MAPCRACKS                     |
|  | HAIRLINE CRACKS               |
|  | HONEYCOMB AREA                |
|  | SCALE AREA                    |

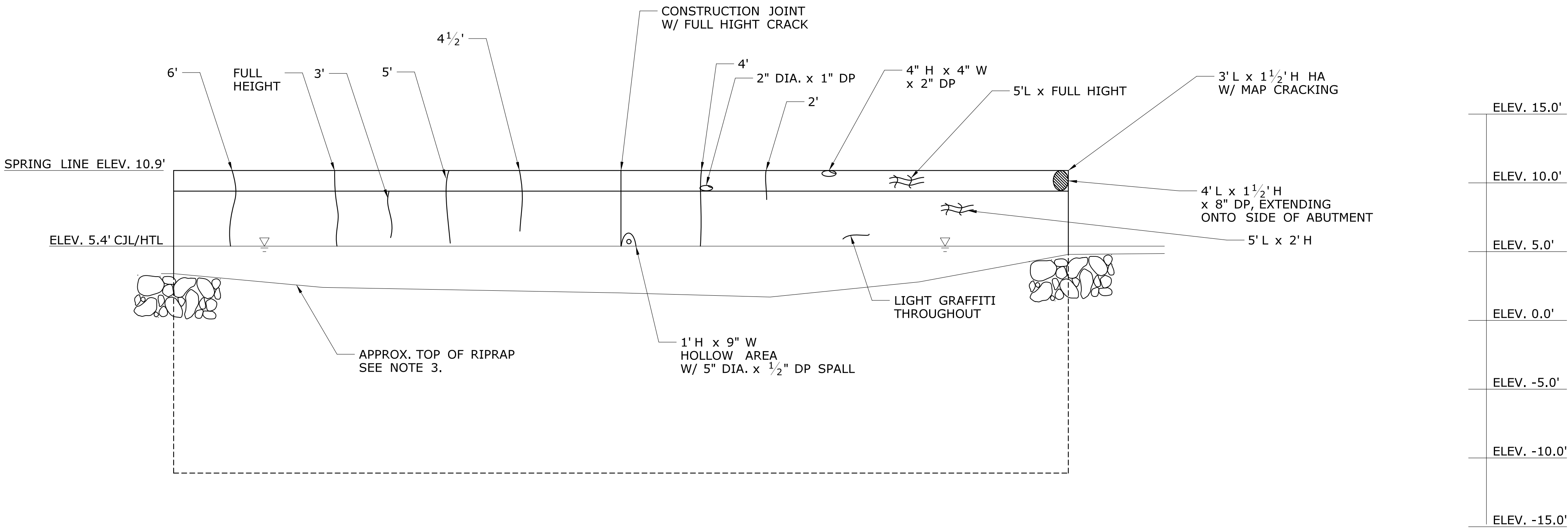
**NOTES:**

1. THE DETERIORATION LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON LIMITED FIELD OBSERVATIONS AND 2018 BRIDGE SAFETY INSPECTION REPORT DATED 5/11/18. THE INFORMATION IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE. THE EXACT LOCATION AND LIMITS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
2. NO REPAIRS SHALL BE PERFORMED BELOW THE CJL/HTL.
3. APPROXIMATE MUDLINE ELEVATIONS TAKEN FROM 2018 UNDERWATER INSPECTION REPORT DATED 2/06/18.

[illegible]

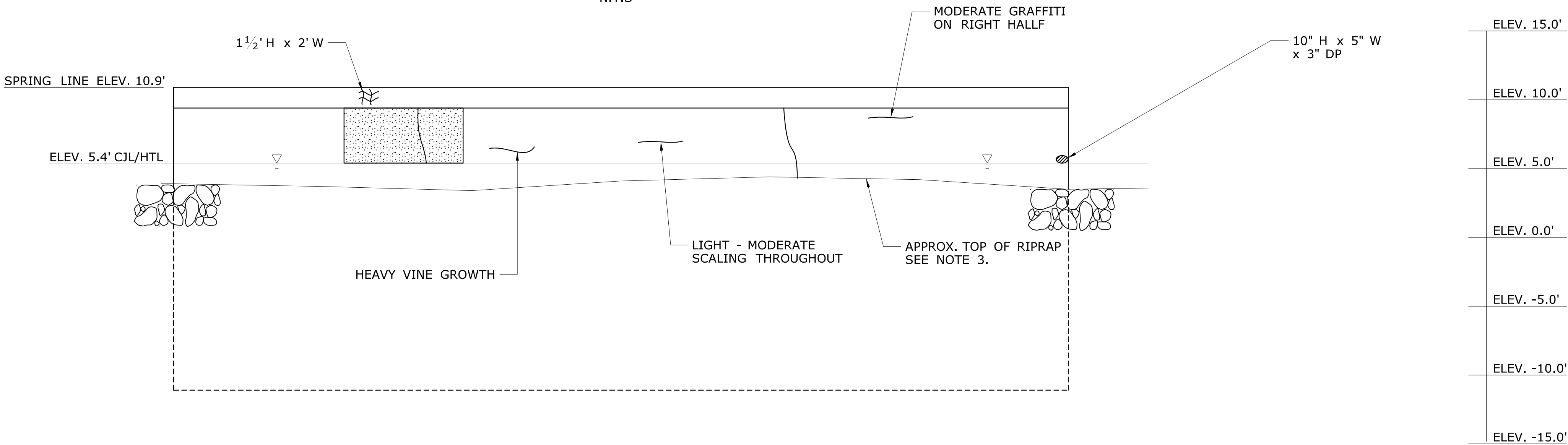
ABBREVIATIONS

L: LONG  
W: WIDE  
H: HIGH  
HA: HOLLOW AREA  
DP: DEEP  
SP: SPALL



ABUTMENT 2 (EAST)

N.T.S



ABUTMENT 1 (WEST)

N.T.S


LEGEND:

- HOLLOW AREA
- SHALLOW REBAR
- SPALL AREA
- SPALL AREA WITH EXPOSED REBAR
- MAPCRACKS
- HAIRLINE CRACKS
- HONEYCOMB AREA
- SCALE AREA

NOTES:

- THE DETERIORATION LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON LIMITED FIELD OBSERVATIONS AND 2018 BRIDGE SAFETY INSPECTION REPORT DATED 5/11/18. THE INFORMATION IS INTENDED TO BE USED AS A GUIDE AND DOES NOT NECESSARILY REFLECT THE CURRENT CONDITION OF THE STRUCTURE. THE EXACT LOCATION AND LIMITS OF DETERIORATED CONCRETE TO BE REPAIRED SHALL BE DETERMINED BY THE ENGINEER DURING CONSTRUCTION.
- NO REPAIRS SHALL BE PERFORMED BELOW THE CJL/HTL.
- APPROXIMATE RIPRAP ELEVATIONS TAKEN FROM 2018 UNDERWATER INSPECTION REPORT DATED 2/06/18.

ENVIRONMENTAL PERMIT PLANS  
PLAN DATE: OCTOBER 25, 2019

REV.	DATE	REVISION DESCRIPTION	SHEET NO.	Plotted Date: 10/24/2019	DESIGNER/DRAFTER: A. ST. GERMAIN		SIGNATURE/ BLOCK:	PROJECT TITLE: <b>DERBY-SHELTON BRIDGE (BR. 01659) PEDESTRIAN AND BICYCLIST ACCESS IMPROVEMENTS</b>	TOWN: <b>SHELTON AND DERBY</b>	PROJECT NO. <b>126-174</b>
					CHECKED BY: M. HASHEM				DRAWING TITLE: <b>CONCRETE REPAIR DETAILS 6 OF 6</b>	DRAWING NO. <b>PMT-09</b>
					SCALE AS NOTED					SHEET NO.

# **General Permit for Coastal Maintenance**

DEEP-OLISP-GP-2015-02

Issuance Date: October 26, 2015  
Expiration Date: October 26, 2035

Bureau of Water Protection and Land Reuse  
Office of Long Island Sound Programs  
860-424-3034

# General Permit for Coastal Maintenance

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# General Permit for Coastal Maintenance

## Section 1. Authority

This general permit is issued under the authority of section 22a-361(d) of the General Statutes.

## Section 2. Definitions

As used in this general permit:

*“Adverse impacts on coastal resources”* means adverse impacts on coastal resources as defined by section 22a-93(15) of the General Statutes.

*“Ancillary structures”* means structures which facilitate boating access or support including utility lines such as fuel, waste, water, electric and cable, and berthing devices such as bollards, cleats, dock hooks, fenders and davits.

*“Approval of registration”* means an approval of registration issued under Section 4 of this general permit.

*“Authorized activity”* means any activity authorized by this general permit.

*“Backflow prevention structure”* means a device such as a flap gate or duck bill that allows water to drain out from a closed water discharge system and prevents backflow of tidal water into a closed water discharge system.

*“Beach grading”* means the redistribution and regrading of on-site beach sand between mean low water and the coastal jurisdiction line without the nourishment or addition of any off-site beach sand or other material.

*“Beach raking”* means the use of motorized equipment and any associated implements on a beach below the coastal jurisdiction line for the purpose of removing macroalgae, stones, shells or other natural or unnatural debris.

*“Boat launch infrastructure”* means boat launch ramps, docks, gangways, approaches, aprons, drainage structures, erosion control, pavement or any other structures or features associated with the launching of vessels at public boat launch facilities.

*“Boating access or support”* means moorings, fixed or floating docks, gangways or piles specifically utilized for the following recreational activities: berthing, accessing, loading, repairing, launching, hauling, fueling or discharging waste from boats.

*“Catch basin”* means a stormwater system structure in which grit, sand, sediment or debris is collected.

*“Catch basin cleaning”* means removal of grit, sand, sediment or debris from a catch basin by use of a vacuum, backhoe, shovel, or other device.

*“Closed water discharge system”* means a piping system that discharges stormwater

originating from an upland area to an area below the coastal jurisdiction line and is not connected on the landward side to any tidal wetlands.

*“Coastal habitat creation”* means to bring into existence a habitat that was not historically supported at the site in question including the conversion of an existing habitat in favor of a new habitat.

*“Coastal habitat enhancement”* means the intentional alteration of a habitat to improve one or a very limited number of functions of the existing habitat type.

*“Coastal jurisdiction line”* means coastal jurisdiction line as defined by section 22a-359(c) of the General Statutes.

*“Coastal resources”* means coastal resources as defined by section 22a-93(7) of the General Statutes.

*“Coastal restoration activities”* means the intentional alteration of a site to reestablish the approximate biogeophysical conditions that existed in the predisturbance ecosystem or habitat and, for the purposes of this general permit, shall include coastal habitat creation and coastal habitat enhancement. Such activities include, but are not limited to, open marsh water management activities, ditching, pond creation, raising marsh surface elevation, mowing, planting, removal of vegetation, the placement, repair or removal of tide regulating structures, and the installation or repair of fish bypass systems.

*“Commissioner”* means commissioner as defined by section 22a-2(b) of the General Statutes.

*“Cultch”* means a substrate appropriate for larval oyster attachment, consisting of gravel or shell material.

*“Day”* means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

*“Department”* means the department of energy and environmental protection.

*“Department of Energy and Environmental Protection maintenance activities”* means repair or replacement of certain appurtenances and facilities associated with the launching or retrieving of boats at State launches.

*“Department of Transportation maintenance activities”* means rehabilitation, repair, replacement of state-owned and maintained transportation infrastructure and appurtenances such as highways, roadways, bridges, and railways, and associated supporting and protective structures integral to the use and functionality of such infrastructure including, but not limited to, temporary accessways, stormwater-related structures, bridge piers, decks and abutments, mechanical, electrical or operational structures or workhouses.

*“Derelict structure”* means any flotsam, structure or vessel, or component thereof, that has been abandoned or deserted, is no longer capable of functioning as intended, or is impeding navigation.

*“Dock”* means an elevated or floating structure comprised of an open fixed pile-supported pier, gangway, or float, or any part or combination thereof, including all associated previously authorized boating-related appurtenances or features including but not limited to piles or pile clusters, boatlifts, utilities, or wave-attenuating devices.

*“Individual permit”* means a permit or certificate of permission issued to a named permittee under section 22a-361, section 22a-363b, or 22a-32 of the General Statutes.

*“Existing inhabited structure”* means a house, dwelling, or abode which was in use prior to the effective date of this general permit.

*“FEMA”* means the Federal Emergency Management Agency.

*“FEMA standards”* means municipal flood hazard or floodplain ordinances or regulations, approved by FEMA to allow participation of the municipality in the National Flood Insurance Program under the provisions of 44 CFR parts 59 and 60.

*“Intertidal flats”* means intertidal flats as defined by section 22a-93(7)(D) of the General Statutes.

*“Harbormaster”* means a harbormaster or deputy harbormaster appointed pursuant to section 15-1 of the General Statutes.

*“Licensed shellfish operator”* means a person licensed by the commissioner of agriculture to take, harvest, cultivate, produce oysters or other shellfish pursuant to Chapter 491 of the General Statutes.

*“Marina boundary”* means an area within which reconfiguration activities may occur and which has been established by the commissioner by connecting with straight lines the terminating point of existing authorized in-water boating-access structures including fixed or floating docks, gangways and piles, but excluding dredge footprints, vessels, mooring buoys, navigational markers and property lines.

*“Marina reconfiguration”* means the placement, replacement, removal or relocation of moorings, fixed or floating docks, piles, ladders, gangways, or finger piers and ancillary structures within an established marina boundary for boating access or support or for seasonal storage of such structures subject to the conditions of this general permit.

*“Mean high water”* means the average of all high water heights observed over the National Tidal Datum Epoch.

*“Mean low water”* means the average of all low water heights observed over the National Tidal Datum Epoch.

*“Mooring boundary”* means an area within which reconfiguration activities may occur and which is established by the commissioner by connecting with straight lines the perimeter of

existing in-water mooring buoys, but excluding dredge footprints, vessels, mooring swing radii, navigational markers, and property lines.

*“Mooring reconfiguration”* means the placement, replacement, removal or relocation moorings, within an established mooring boundary for boating access or support, exclusive of fixed and floating docks.

*“Municipality”* means a city, town or borough of the state.

*“Non-commercial”* means a structure which is (1) not rented and no other charge by the permittee is made for its use or maintenance; and (2) is not operated, maintained, or used by any for-profit entity.

*“Order”* means any consent order, removal order, cease and desist order, or any other enforcement action taken by the commissioner under authority of sections 22a-6, 22a-7, 22a-108, 22a-178, 22a-181, 22a-225, 22a-428, 22a-430, 22a-431, 22a-432, 22a-433, or 22a-449 of the General Statutes, or under any authority available by law or any enforcement action taken by the U.S. Army Corps of Engineers (“Corps”) or the U.S. Environmental Protection Agency (“EPA”); or any order entered by a state or federal court of competent jurisdiction pursuant to an enforcement action taken by the commissioner, the Corps, or EPA.

*“Permittee”* means any person or municipality to which the commissioner has issued an approval of registration under this general permit.

*“Person”* means person as defined by section 22a-2(c) of the General Statutes.

*“Prior authorization”* means a permit, certificate of permission, or approval of general permit registration issued by the State of Connecticut under section 22a-32, 22a-361, 22a-361(d), or 22a-363b of the General Statutes which was issued before the date of submission of a registration under this general permit.

*“Registrant”* means a person who or municipality which files a registration pursuant to Section 4 of this general permit.

*“Registration”* means a registration form filed with the commissioner pursuant to Section 4 of this general permit.

*“Remedial activity”* means any dredging, construction, placement of fill, obstruction or encroachment or work incidental thereto, or any other work the purpose of which is to restore a site or habitat to its natural condition, to correct a violation of law, to remove an unauthorized structure, fill, obstruction or encroachment, or to conduct remediation as defined by section 22a-133k-1 of the Regulations of Connecticut State Agencies.

*“Removal of derelict structure”* means the physical removal of derelict structures using hand-held tools or mechanical equipment.

*“Repointing”* means filling by hand, using hand-held equipment, cracks or weak spots in a seawall with mortar or small stones without increasing the waterward encroachment of the

seawall.

“*Seawall*” means any dry stone or concrete structure, including bulkheads, retaining walls and riprap revetments, the purpose or effect of which is to prevent upland materials from slumping or otherwise entering the area waterward of the coastal jurisdiction line. The term does not include steel, timber, or plastic sheet pile, railroad ties or concrete blocks.

“*Site*” means geographically contiguous land or water on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water owned by the same person and connected by a right-of-way which such person controls and to which the public does not have access shall be deemed the same site.

“*Skim coating*” means, a layer of coating, applied by hand using hand-held equipment, to the face of a seawall not exceeding one inch in thickness.

“*Temporary access of construction vehicles or equipment*” means operation of construction vehicles or heavy equipment, including active equipment or material loading or off-loading via barge, within areas below the coastal jurisdiction line for the purposes of accessing, supporting, or conducting work above the coastal jurisdiction line and otherwise unregulated pursuant to section 22a-361 of the General Statutes.

“*Tidal wetlands*” means wetland as defined by section 22a-29(2) of the General Statutes.

“*Watercourse*” means watercourse as defined by section 22a-38 of the General Statutes.

### **Section 3. Authorization Under This General Permit**

#### **(a) *Eligible Activities***

Provided the requirements of Section 3(b) of this general permit are satisfied, this general permit authorizes the following activities:

- (1) establishment of a marina boundary and reconfiguration within such boundary, or the establishment of a mooring boundary and reconfiguration within such boundary;**
- (2) remedial activities which have been required by an order as defined in this general permit;**
- (3) modification of an existing inhabited structure which is located in whole or in part waterward of the coastal jurisdiction line and landward of mean high water for the purposes of conforming such structure to FEMA standards;**
- (4) reconstruction of a legally existing structure, obstruction or encroachment which was installed pursuant to a prior authorization and which exists in a serviceable state; and (b) removal of debris and reconstruction of a legally existing structure, obstruction or encroachment which has been damaged or destroyed by a casualty loss**

not more than one calendar year prior to the date of submission of the registration required in Section 4(a) of this general permit;

(5) **maintenance activities performed on certain existing Department of Transportation infrastructure as follows:**

- (A) **Bridge Deck Drains.** Repair, rehabilitation, replacement and cleaning of bridge deck drains, scuppers and weeps, including the removal of accumulated sediment;
- (B) **Bridge Painting.** Preparation of steel and painting including the placement of containment devices upon bridges;
- (C) **Bridge Mechanical, Electrical and Operational Repairs.** Rehabilitation or replacement of appurtenances necessary for bridge safety and operation including lighting, fixtures, mechanical or electrical rooms or boxes, catenary support and wires, and signals and signal boxes;
- (D) **Bridge Superstructure.** Rehabilitation, rinsing, repair or replacement of bridge superstructure components such as steel or timber members, plates or hardware, or bridge bearings, or the full bridge superstructure;
- (E) **Bridge Decks.** Repair, rehabilitation or replacement of bridge decks membrane and bituminous wearing surfaces, joints, rails, ties, and fencing or other protective systems;
- (F) **Bridge Supports.** Repair concrete superstructure or substructure elements including spalling, repointing or grouting of concrete, repairs to the joints, and application of protective coating;
- (G) **Bridge Scour.** Manually placing grout bags within or immediately adjacent to the footprint of bridge substructure;
- (H) **Walls and Abutments.** Repair of concrete wingwalls, endwalls or bridge abutments and pipe repair or replacement of such structures associated with such necessary wingwall, endwall or abutments;
- (I) **Pipes and Culverts.** Removal of pipes and culverts, including the creation of open channels associated with the removal of such pipes and culverts;
- (J) **Outlet Protection.** Repair, rehabilitation or expansion of an existing splash pad or plunge pool associated with an existing stormwater outfall or the installation of a new splash pad or plunge pool associated with the removal of a pipe or culvert;
- (K) **Shoreline Protection.** Repair of previously protected shorelines

including riprap and stone armoring including shaping, regrading, placement of bedding material and riprap or armor stone to the pre-existing contours, and repair of seawalls to pre-existing conditions including repointing, patching, resetting stones, and applying a skim coat to the face of the seawall;

(L) **Access.** Installation and use of low-impact temporary access structures including scaffolding, low ground pressure equipment, elevated trestle, scaffolding, ladders, and construction mats; and

(M) **Rail Infrastructure.** Repair, rehabilitation or replacement of ballast, ties, rails, catenary towers and wires, signal cable tray, signal conduits, signal box and foundation, and electrical substations.

(6) **beach grading or beach raking conducted in the area between mean low water and the coastal jurisdiction line;**

(7) **removal of derelict structures;**

(8) **placement of cultch;**

(9) **minor repair to seawalls including patching concrete, repointing mortar between stones, resetting fallen stones and applying a skim coat to the face of the seawall;**

(10) **catch basin cleaning;**

(11) **repair or replacement of a backflow prevention structure on a closed water discharge system;**

(12) **coastal restoration activities including coastal habitat creation and coastal habitat enhancement;**

(13) **temporary access of construction vehicles or equipment; and**

(14) **maintenance activities performed on certain existing Department of Energy & Environmental Protection boat launch infrastructure as follows:**

(A) **repair, replacement or repositioning of concrete planks, concrete panels, or interlocking blocks;**

(B) **repair or replacement of bituminous concrete;**

(C) **replacement or removal of gravel, stone or riprap material; and**

(D) **repair of trench drains, drainage systems, or erosion protection.**

Any discharge of water, substance or material into the waters of the state other than

the one specified in this section is not authorized by this general permit, and any person who or municipality which initiates, creates, originates or maintains such a discharge must apply for and obtain authorization under section 22a-430 of the General Statutes prior to the occurrence of such discharge.

**(b) *Requirements for Authorization***

This general permit authorizes each of the activities listed in Section 3(a) of this general permit provided:

**(1) Registration**

A completed registration with respect to the activities identified in Section 3(a)(1), 3(a)(2), or 3(a)(3) of this general permit has been filed with the commissioner and the commissioner has issued an approval of registration with respect to such activity.

Or

A completed registration with respect to the activities identified in Section 3(a)(4) of this general permit has been filed with the commissioner.

Or

No registration is required with respect to activities identified in Section 3(a)(5) through Section 3(a)(14) of this general permit.

**(2) Coastal Area Management**

Such activity is consistent with all-applicable goals and policies in section 22a-92 of the General Statutes, and will not cause adverse impacts to coastal resources as defined in section 22a-93 of the General Statutes.

**(3) Endangered and Threatened Species**

Such activity does not threaten the continued existence of any species listed pursuant to section 26-306 of the General Statutes and will not result in the destruction of adverse modification of habitat designated as essential to such species.

**(4) Aquifer Protection**

Such activity, if it is located within an aquifer protection area as mapped under section 22a-354b of the General Statutes, complies with regulations adopted pursuant to section 22a-354i of the General Statutes.

**(5) Conservation and Preservation Restrictions**

Such activity, if located on or may affect property subject to a conservation or preservation restriction, complies with section 47-42d of the Connecticut General Statutes, by providing the following to the commissioner: proof of written notice to the holder of such restriction of the proposed activity's registration pursuant to this general permit or a letter from the holder of such

restriction verifying that the proposed activity is in compliance with the terms of the restriction.

(6) **Flood Management**

Such activity shall be consistent with all applicable standards and criteria established in sections 25-68d(b) of the General Statutes and sections 25-68h-1 through 25-68h-3, inclusive, of the Regulations of Connecticut State Agencies.

(c) ***Geographic Area***

This general permit applies throughout the tidal, coastal and navigable waters of the State of Connecticut and, where not explicitly disallowed, in tidal wetlands.

(d) ***Effective Date and Expiration Date of this General Permit***

This general permit is effective on the date it is issued by the commissioner and expires twenty (20) years from such date of issuance.

(e) ***Effective Date of Authorization***

Any activity identified in section 3(a)(1), 3(a)(2) and 3(a)(3) of this general permit is authorized by this general permit on the date the commissioner issues a written approval of registration with respect to such activities.

Any activity identified in Section 3(a)(4) of this general permit is authorized on the date the commissioner receives a completed registration with respect to such activity which meets the requirements of Section 4 of this general permit.

Any activity identified in Sections 3(a)(5) through 3(a)(14) of this general permit is authorized by this general permit effective on the date this general permit becomes effective, or on the date the activity is initiated, whichever is later.

(f) ***Transition to and from an Individual Permit***

No person shall operate or conduct an activity authorized by both an individual permit and this general permit. The requirements for transitioning authorization are as follows:

- (1) ***Transition from an Individual Permit to Authorization under this General Permit.*** If an activity meets the requirements of authorization of this general permit and such operation or activity is presently authorized by an individual permit, the permittee may seek a modification to the permit to exclude such operation or activity from the individual permit or if the operation or activity is the sole operation or activity authorized by such permit, the permittee shall surrender its permit in writing to the commissioner. In either event, such permittee's individual permit shall continue to apply and remain in effect until authorization of such operation or activity under this general permit takes effect.
- (2) ***Transition from Authorization under this General Permit to an Individual Permit*** If an activity or operation is authorized under this general permit and the commissioner subsequently issues an individual permit for the same activity,

then on the date any such individual permit is issued by the commissioner, the authorization issued under this general permit shall automatically expire.

#### **Section 4. Registration Requirements**

**(a) *Who Must File a Registration***

Any person or municipality seeking under the authority of this general permit to conduct work set forth in Section 3(a)(1) through 3(a)(4) of this general permit, shall file with the commissioner:

- (1) A registration form which meets the requirements of Section 4 of this general permit; and
- (2) The applicable fee.

**(b) *Scope of Registration***

A registrant shall register each activity for which the registrant seeks authorization under this general permit on a separate registration form.

**(c) *Contents of Registration***

(1) Fees

(A) Fee Schedule

- i. For work pursuant to Sections 3(a)(1) and 3(a)(2) of this general permit, the registration fee of \$700.00 shall be submitted with a registration form.
- ii. For work pursuant to Section 3(a)(3) of this general permit, the registration fee of \$100.00 shall be submitted with the registration form.
- iii. For work pursuant to Section 3(a)(4) of this general permit, above, the registration fee of \$300.00 shall be submitted with the registration form.
- iv. The registration shall not be deemed complete and no activity shall be authorized by this general permit unless the registration fee has been paid in full.
- v. The registration fee shall be paid by check or money order payable to the **Department of Energy and Environmental Protection**.

(B) The registration fee is non-refundable.

(2) Registration Form

A registration shall be filed on forms prescribed and provided by the commissioner.

**(d) *Where to File a Registration and Other Related Documents***

A registration shall be filed with the commissioner at the following address:

CENTRAL PERMIT PROCESSING UNIT  
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION  
79 ELM STREET  
HARTFORD, CT 06106-5127

**(e) *Notification of Harbor Management Commission***

Where applicable, a copy of the registration shall be submitted to the harbor management commission in the town where the work is proposed at the time the registration is filed with the commissioner.

**(f) *Additional Information***

The commissioner may require a registrant to submit additional information, which the commissioner reasonably deems necessary to evaluate the consistency of the subject activity with the requirements for authorization under this general permit.

**(g) *Action by Commissioner***

- (1) The commissioner may reject without prejudice a registration if it is determined that it does not satisfy the requirements of Section 4(c) of this general permit or more than thirty (30) days have elapsed since the commissioner requested that the registrant submit additional information or the required fee and the registrant has not submitted such information or fee. Any registration refiled after such a rejection shall be accompanied by the fee specified in Section 4(c)(1) of this general permit.
- (2) The commissioner may disapprove a registration if it is found that the subject activity is inconsistent with the requirements for authorization under Section 3 of this general permit, or for any other reason provided by law.
- (3) Disapproval of a registration under this subsection shall constitute notice to the registrant that the subject activity may not lawfully be conducted or maintained without the issuance of an individual permit.
- (4) The commissioner may approve a registration with reasonable conditions. If the commissioner approves a registration with conditions, the permittee shall be bound by such conditions as if they were a part of this general permit.
- (5) Rejection, disapproval, or approval of a registration shall be in writing.

**Section 5. Conditions of This General Permit**

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, a permittee shall assure that activities authorized by this general permit are conducted in accordance with the following conditions:

**(a) *Special Conditions for MARINA AND MOORING FIELD RECONFIGURATION authorized in Section 3(a)(1) of this general permit.***

- (1) Registrant for such reconfiguration is a yacht club or marina whose slips are entirely open for public use by membership or rental.
- (2) Such activities are not located on or over tidal wetlands or intertidal flats.
- (3) Such activities do not increase the number of berthing or mooring slips at the facility by more than 5% in any calendar year.
- (4) Such activities and any vessels berthed or moored to such reconfigured structures or moorings shall not interfere with the access to any riparian or littoral property and shall be placed and maintained within any established marina or mooring field boundary.
- (5) Prior to any such reconfiguration, the registrant must demonstrate that all regulated in-water structures are authorized by the State and are in compliance with such authorizations, as applicable.
- (6) Such activities shall include only structures used for boating access or support. Such activities shall not include structures such as offices, residences, restaurants, concessions, gazebos, viewing platforms, workshops, patios, or storage facilities, or other walled or roofed structure such as attendant shed, marina office, or other building.
- (7) Such activities shall not include the construction, installation, relocation, or modification of any wave-attenuating structures.
- (8) Such activities shall not include the construction or installation of any docks wider than the widest docks of the similar function previously authorized nor shall it include the installation of any gangways wider than the widest gangways previously authorized.
- (9) Such activities shall not include dredging, the placement of fill, or the installation of other structures not specifically authorized herein, including but not limited to seawalls, riprap, bulkheads, and travel lifts.
- (10) The placement of fixed piers or floating docks within any mooring boundary is prohibited under this general permit.
- (11) Any fixed piers or floating docks, in a marina boundary, shall be constructed in a manner that does not unreasonably restrict access to or along lands and waters waterward of mean high water.
- (12) Any fixed piers or floating docks, in a marina boundary, shall be designed to allow most wave and water current energy to pass through or under such

structure.

- (13) Any fixed pier, in a marina boundary, shall utilize the minimum number of pilings necessary, consistent with safety and resource protection considerations, and where feasible shall utilize large spans on fewer pilings rather than smaller spans on more pilings.
- (14) The permittee shall notify the commissioner of the commencement of any work authorized by the approval of registration no later than three days before commencing such work and shall notify the commissioner in writing of the completion of such work no later than seven days after such completion.

***(b) Special Conditions for REMEDIAL ACTIVITIES authorized in Section 3(a)(2) of this general permit.***

- (1) Such remedial activity has been required under an order as defined in Section 2 of this general permit requiring the permittee to conduct such remedial activity.
- (2) The permittee shall notify the commissioner of the commencement of any work authorized by the approval of registration no later than three days before commencing such work and shall notify the commissioner in writing of the completion of such work no later than seven days after such completion.

***(c) Special Conditions for RESIDENTIAL FLOOD HAZARD MITIGATION authorized in Section 3(a)(3) of this general permit.***

- (1) Prior to the commencement of work, the registrant shall obtain all other legally required authorizations applicable to such activity, including without limitation a building permit issued pursuant to section 8-3 of the General Statutes, a coastal site plan approval pursuant to sections 22a-105, 22a-106, or 22a-109 of the General Statutes, or a variance issued pursuant to section 8-6 of the General Statutes.
- (2) The sole purpose and effect of such activity is to conform an existing inhabited structure with applicable FEMA standards. Such activity may include, without limitation, elevating the subject structure and installing break-away walls, or other activities consistent with residential floodproofing standards.
- (3) No activity authorized herein shall result in the conversion of a dwelling from seasonal to year-round use, or in any other expansion or alteration of use of the subject structure.
- (4) Such activity shall not be construed as authorizing the construction or maintenance of any shoreline flood and erosion control structure as defined by section 22a-109(c) of the General Statutes.
- (5) Such activity does not create any further waterward encroachment of any structure, or the expansion of the subject structure's floor area, living space, or the addition of appurtenances such as decks or porches.

- (6) Such activity is not located waterward of mean high water or on or over tidal wetlands.
- (7) The registrant shall comply with the standards and requirements set forth in section 25-68b through 25-68h of the General Statutes, as applicable.
- (d) ***Special Conditions for RECONSTRUCTION authorized in Section 3(a)(4) of this general permit.***
  - (1) Such reconstruction is limited to the reconstruction of a structure, obstruction or encroachment which has been the subject of a prior authorization. This authorization explicitly does not apply to “grandfathered” or previously unauthorized structures that exist without the benefit of a prior authorization.
  - (2) Unless otherwise authorized in writing by the commissioner, such reconstruction activity shall be in-kind and in-place conforming to the siting, layout, design, materials and structural components as set forth in the prior authorization. The permittee shall not deviate from said authorization without prior written approval of the Commissioner.
  - (3) Such reconstruction shall be conducted in accordance with the requirements for authorization set forth herein and in accordance with any applicable terms and conditions set forth in the prior authorization.
  - (4) Prior to any reconstruction activity, the permittee shall obtain site plans signed and sealed by a professional engineer or land surveyor licensed in the State of Connecticut showing both the pre-construction site conditions and structures and the proposed site conditions and structures.
  - (5) The contractor(s) shall, whenever work is being performed, maintain a copy of the plans referenced above on the work site and make such plans available for inspection.
  - (6) Prior to any reconstruction activity, the permittee shall take site photographs documenting the pre-construction conditions.
  - (7) Such reconstruction does not apply to any dredging, regrading, fill or any other activities which restore or modify grades, depths, slopes, contours, tidal elevations or property boundaries.
  - (8) Such reconstruction does not apply to any groins or jetties.
  - (9) Such reconstruction does not apply to oversheeting of bulkheads.
  - (10) Any reconstruction activity of flood and erosion control structures is prohibited in areas of tidal wetlands.
  - (11) Any reconstruction activity of flood and erosion control structures which

increases the top elevation is prohibited.

- (12) Any reconstruction activity of docks that occur in areas of tidal wetlands shall be conducted such the lowest horizontal member of such fixed pier is no lower than five (5) feet off the surface of any underlying wetland areas, except if the previous authorization indicates such horizontal member is required to be constructed at a greater elevation.
- (13) Any reconstruction activity which proposes minor modifications or engineering improvements to flood and erosion control structures, without modifying the footprint of such structure, may be allowable provided that the permittee provides a narrative of such changes and a copy of the pre-construction and proposed site conditions plans with the registration filed pursuant to Section 4 of this general permit. Such modifications or improvements may include but are not limited to weep holes, footings, tie-backs, or returns. Approval for such modifications will be made at the sole discretion of the Commissioner and the permittee will be notified in writing of such decision.
- (14) Not later than five days prior to the commencement of work authorized herein, the permittee shall notify the commissioner of the commencement of work unless otherwise authorized by the commissioner.
- (15) Not later than 90 days after completion of any work authorized herein, the permittee shall prepare a Compliance Certification, a copy of which is attached to the registration form as Appendix A. Such Compliance Certification shall be completed by a professional engineer or land surveyor licensed in the State of Connecticut and shall be signed and sealed by such professional.
- (16) Not later than 120 days after completion of any work authorized herein, the permittee shall submit: (1) the Compliance Certification; (2) a copy of the pre-construction and post-construction plans; and (3) a copy of the pre-construction site photographs.
- (17) Such reconstruction shall be conducted only upon property owned by the permittee or the registrant shall submit written permission from the rightful property owner approving such activity with the registration filed pursuant to Section 4 of this general permit.

**(e) *Special Conditions for DEPARTMENT OF TRANSPORTATION  
MAINTENANCE authorized in Section 3(a)(5) of this general permit.***

- (1) In conducting any Department of Transportation Maintenance activities, the permittee shall follow any applicable Best Management Practices, design manuals and materials specifications published, used or adopted by the Connecticut Department of Transportation.
- (2) In conducting the work authorized herein, the permittee shall not cause permanent impacts to tidal wetlands associated with the installation of temporary or permanent structures, staging, or storage.

- (3) In conducting any bridge painting, preparation or cleaning activities authorized herein, the permittee shall install and utilize proper containment that prevents discharges into coastal waters or wetlands. The permittee shall ensure the containment system is in optimal operating condition until the work authorized herein is completed.
- (4) Any debris associated with any activity authorized herein, including sediment or debris from drains, scuppers or weeps; residue from scraping, sandblasting, abrading or painting, shall be collected and disposed of at an approved upland site applicable for such debris.
- (5) This authorization specifically does not allow for the increase of additional stormwater flows from the structures authorized herein.
- (6) The permittee shall stage any barges employed to complete the work authorized herein such that no more than 50% of the channel beneath any bridge is impeded at any time.
- (7) Any debris containment systems employed by the permittee shall be designed so as to prevent impacts to navigation. Prior to commencement of work, the permittee shall obtain Advance Approval by the U.S. Coast Guard, when applicable.
- (8) The full superstructure replacement authorized herein shall not include the replacement of existing bridge piers or foundations or construction of new bridge piers or foundations, nor shall it include any expansion of the width of any superstructure that could increase the volume of stormwater associated with such work.
- (9) Unless otherwise authorized in writing by the commissioner, the permittee, prior to the commencement of any bridge scour repair, shall install turbidity curtains or other appropriate containment extending from the water surface to the substrate around the work area. Such curtains shall be maintained in optimal operating condition until project completion at which time the erosion and sediment controls shall be removed to an upland location.
- (10) Prior to the installation of any grout bags, the permittee shall consult with Department of Energy & Environmental Protection Inland Fisheries Division regarding necessary project modifications or restrictions to protect fisheries resources. Any such modifications or restrictions become binding.
- (11) The permittee shall install any grout bags by hand. Such grout bags shall be located within the footprint of the existing footing and shall not extend further than two feet from the face of such footing. Such grout bags shall be placed in such a manner that they do not pose any adverse impact to navigation or fish passage.
- (12) In conducting work to wingwalls, endwalls, abutments, pipes, culverts, outlet

protection, or other shoreline armoring the permittee shall work during periods of low flow and low tide so as minimize sedimentation and impacts to coastal resources.

- (13) In constructing any new outlet protection where a section of pipe has been removed, the permittee shall not exceed the area of the disturbance caused by the removal of the pipe.
- (14) In conducting shoreline protection projects authorized herein, riprap or armoring shall not exceed the footprint of the protection originally in-place and shall be at the same grade and slope.
- (15) Not later than 90 days subsequent to the completion of any shoreline protection project including rip rap, bedding material, or other shoreline armoring authorized herein, the permittee shall submit as-built drawings showing the project.
- (16) In conducting any riprap work, the permittee shall place such riprap to its full course thickness in one operation to produce a reasonably well-graded slope without causing displacement of the underlying bedding material.
- (17) Prior to the commencement of work authorized herein, the permittee has obtained approval from the commissioner from sections 25-68b through 25-68h, inclusive, of the General Statutes, and sections 25-68h-1 through 25-68h-3 of the Regulations of Connecticut State Agencies, inclusive, as applicable.
- (18) Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure or it shall be placed on construction mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation. Construction mats are to be placed in the wetland from the upland or from equipment positioned on swamp mats if working within a wetland. Dragging construction mats into position is prohibited.
- (19) Not later than January 15 of any year following a year in which the Department of Transportation conducted work under this general permit, the permittee shall submit a Project Report to the commissioner. The Project Report shall specify which projects, and which components of such projects, were conducted under this general permit, and a summary of the total number of times in the reporting year that the Department of Transportation conducted work under this general permit.

**(f) *Special Conditions for BEACH GRADING and BEACH RAKING authorized in Section 3(a)(6) of this general permit.***

- (1) Unless otherwise authorized in writing by the Commissioner, all beach grading work authorized herein is prohibited between April 1<sup>st</sup> and September 15<sup>th</sup>, inclusive, of any year in order to protect spawning horseshoe crabs and nesting and migrating shorebirds.
- (2) Unless otherwise authorized in writing by the Commissioner, any beach raking activity which uses motorized equipment or employs implements which

penetrate more than two inches is prohibited between May 10<sup>th</sup> and July 15<sup>th</sup>, inclusive, of any year in order to protect spawning horseshoe crabs. Surficial beach raking by hand may be conducted at any time.

- (3) Such beach grading or beach raking activities are not conducted in areas of tidal wetlands or intertidal flats.
  - (4) All structures located at or waterward of the coastal jurisdiction line on the site where such activities are proposed are authorized through an individual permit of this department and are in full compliance with such permit.
  - (5) Such beach grading or beach raking activities shall not be conducted in areas waterward of mean low water.
  - (6) In conducting such beach grading or beach raking activities, the permittee shall not store, stage, or operate any equipment in-water at any time.
  - (7) No work authorized herein shall impede access to any riparian or littoral property.
  - (8) No work authorized herein shall take place on any leased or managed shellfish bed.
  - (9) Any material including macroalgae, stones, shells or other natural or unnatural debris removed during beach raking activities shall be disposed of above the coastal jurisdiction line and outside of any tidal wetlands.
- (g) ***Special Conditions for DERELICT STRUCTURES authorized in Section 3(a)(7) of this general permit.***
- (1) Prior to the commencement of work authorized herein, the permittee must obtain written permission from the property owner if the permittee is not the property owner whereupon such activity is to be undertaken.
  - (2) Prior to the commencement of work authorized herein, the permittee shall install either (a) siltation curtains or (b) floating turbidity booms, if necessary, around the work area. Such curtains or booms shall be maintained in optimal operating condition until the work is completed and the area has stabilized.
  - (3) Such activity is prohibited between June 1<sup>st</sup> and September 30<sup>th</sup>, inclusive, of any year in order to protect spawning shellfish in the area unless otherwise authorized in writing by the commissioner.
  - (4) Any such activity which occurs in the intertidal zone shall only be conducted during periods of low water.
  - (5) Such activity shall not disturb, displace or destroy objects determined by the State of Connecticut Historic Commission to have historical significance.

**(h) *Special Conditions for PLACEMENT OF CULTCH authorized in Section 3(a)(8) of this general permit.***

- (1) Such placement of cultch shall only be conducted by a licensed shellfish operator in beds or areas designated for shellfishing under section 26-194 or section 26-242 of the General Statutes.
- (2) Such placement of cultch shall be conducted only in appropriate locations for colonization by oysters, based upon factors of salinity, water quality, water circulation patterns and substrate composition.
- (3) Such placement of cultch shall not be conducted in areas of tidal wetlands or submerged aquatic vegetation beds.
- (4) Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains all required authorizations from the Department of Agriculture Bureau of Aquaculture and Laboratory and the local shellfish commission, as applicable.
- (5) Prior to the commencement of such placement of cultch, such licensed shellfish operator obtains permission in writing from the owner or lessee of such shellfish bed or area.
- (6) Such placement of cultch shall be conducted in such a manner that it does not exceed a layer of cultch on the seafloor greater than 12” in depth.
- (7) Such placement of cultch shall be conducted such that the placement does not exceed 1,500 bushels per acre of seafloor.

**(i) *Special Conditions for MINOR SEAWALL REPAIR authorized in Section 3(a)(9) of this general permit.***

- (1) Any minor seawall repair authorized herein may include patching concrete, repointing mortar between stones, resetting fallen stones, and applying a skim coating to the face of a seawall.
- (2) Any minor seawall repair authorized herein shall not include the waterward encroachment of the face of the existing wall nor shall it include a new footing waterward of the face of any existing footing.
- (3) Such seawall has been constructed in conformance with an individual permit issued by this department, or was installed prior to June 24, 1939, or installed in its entirety landward of mean high water prior to January 1, 1987, and has been continuously maintained and serviceable since such time.
- (4) No work authorized under this section shall consist of “substantial maintenance” as defined by 22a-363a of the General Statutes.
- (5) No work authorized herein shall measurably increase the height or extend any

lateral or waterward encroachment of the seawall.

- (6) Such seawall work shall only be conducted during periods of low water and shall be conducted by hand using hand-held equipment.

**(j) *Special Conditions for CATCH BASIN CLEANING authorized in Section 3(a)(10) of this general permit.***

- (1) All waste resulting from the work authorized herein including but not limited to grit, sand, or other sediment or debris shall be removed from the area waterward of the coastal jurisdiction line and disposed of at an upland location in accordance with applicable law.
- (2) Sediment removal authorized herein shall not include removal of material located waterward of the waterward terminus of the pipe.
- (3) Activities such as flushing or power washing, or other similar activities that would create sedimentation or turbidity in the receiving waters is strictly prohibited.

**(k) *Special Conditions for BACKFLOW PREVENTION STRUCTURES authorized in Section 3(a)(11) of this general permit.***

- (1) Such portion of the closed water discharge system has been constructed in conformance with an individual permit issued by this department, or was installed prior to June 24, 1939, or installed in its entirety landward of mean high water prior to January 1, 1987, and has been continuously maintained and serviceable since such time.

**(l) *Special Conditions for RESTORATION ACTIVITIES authorized in Section 3(a)(12) of this general permit.***

- (1) Any restoration activities conducted under this authorization, except those consisting of the installation or repair of a fish bypass system, must be performed by, or under the direct supervision of, the department.
- (2) Any installation or repair of a fish bypass system which includes the removal or structural or functional modification of any dam, must be performed either by (a) the department; or (2) by a person who has consulted with department staff regarding project design and implementation. Any such person must implement recommendations made by department staff and shall retain a copy of such written consultation during construction at the construction site.
- (3) Any installation or repair of a fish bypass system which includes the removal or structural or functional modification of any dam, must have prior authorization under section 22a-403 of the General Statutes, as applicable.

**(m) *Special Conditions for TEMPORARY ACCESS OF CONSTRUCTION***

***VEHICLES OR EQUIPMENT authorized in Section 3(a)(13) of this general permit.***

- (1) This authorization is only for active operation of vehicles or equipment. At no time shall such vehicles or equipment be stored below the coastal jurisdiction line.
- (2) No vehicles or equipment shall be operated within areas of tidal wetlands or below the mean low water line. No vehicles or equipment shall be operated in the water during periods of high water above the mean low water line.
- (3) No material including but not limited to fill, construction materials, excavated material or debris, shall be deposited, placed, or stored below the coastal jurisdiction line or within areas of tidal wetlands.
- (4) Any barges used for such work may only come ashore and be secured in place while actively loading or off-loading equipment and shall not be moored or spudded in place for longer than necessary for such loading or off-loading activities.
- (5) This authorization explicitly does not cover construction vehicles or equipment associated with work or other activities regulated pursuant to section 22a-361 or 22a-32 of the General Statutes.

***(n) Special Conditions for MAINTENANCE OF DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION BOAT LAUNCH INFRASTRUCTURE authorized in Section 3(a)(14) of this general permit.***

- (1) No work authorized herein shall occur in tidal wetlands.
- (2) Debris associated with any activity authorized herein shall be collected and disposed of at an approved upland site applicable for such debris.
- (3) Such maintenance activities are limited to boat launches which have been the subject of a prior authorization.
- (4) Such maintenance activities shall not include dredging or excavation of any sediments.
- (5) Except as may be explicitly authorized by the Commissioner, such maintenance activities shall be in-kind and in-place conforming to the siting, layout, design, materials and structural components as set forth in the prior authorization. Any riprap or armoring shall not exceed the footprint as was originally in-place and shall be to the same grade and slope.
- (6) Not later than January 15 of any year following a year in which the Department of Energy and Environmental Protection conducted work under this general permit, the permittee shall submit a Project Report to the commissioner. The Project Report shall specify which projects, and which components of such projects, were

conducted under this general permit, and a summary of the total number of times in the reporting year that the Department of Energy and Environmental Protection conducted work under this general permit.

**(o) *General Construction and Use Conditions applicable to this General Permit.***

- (1) Prior to the commencement of any work authorized by this general permit or any approval of registration, the permittee shall provide copies of this general permit and any applicable approval of registration to any contractor employed to conduct such work and shall make such documents available for inspection at the site whenever work is being performed at the site.
- (2) No registrant or permittee shall initiate construction of any activity authorized herein prior to submission and approval of registration, as applicable, or prior to the submission of a Project Report, as applicable.
- (3) Any activity authorized herein shall be conducted in accordance with the site plans and drawings included with the approval of registration, as applicable.
- (4) Any barge utilized conducting any activity authorized herein, where allowed, shall not be stored over intertidal flats, submerged aquatic vegetation or tidal wetlands or in a location that interferes with navigation. In the event that any barge associated with the work authorized herein becomes grounded, no dragging or prop-dredging shall occur to free the barge.
- (5) Any activity authorized herein shall not be conducted such that it creates a hazard to or interferes with existing navigation uses in adjacent waterways. Such activities shall be setback from federal navigation channels and shall also be setback as prescribed in any harbor management plan approved pursuant to section 22a-113m of the General Statutes.
- (6) Such activities are, where applicable, consistent with a harbor management plan approved pursuant to section 22a-113m of the General Statutes.
- (7) The construction, installation, use or removal of any activity authorized herein shall not interfere with access or navigation to or from any riparian or littoral property.
- (8) The permittee shall maintain in good working condition all structures authorized under this general permit. Unless otherwise authorized in writing by the commissioner, the permittee shall remove from tidal, coastal or navigable waters of the state or tidal wetlands any structure or portions of structures which have been destroyed by any cause whether natural or man-made.
- (9) In the course of conducting any activity authorized herein, no person shall place any equipment or material, including fill, construction materials, construction debris or solid waste as defined in section 22a-207 of the General Statutes in any wetland or watercourse, nor use any wetland or watercourse as staging area except as explicitly authorized herein or in any approval of registration.

- (10) Upon completion of any work authorized herein, the permittee shall restore any area affected by, or used as a staging area in connection with, such activity to the condition of such area prior thereto.
- (11) Any debris associated with any activity authorized herein shall be removed from the area waterward of the coastal jurisdiction line and tidal wetlands and disposed of at an approved upland site applicable for such debris.
- (12) The permittee shall dispose of any solid waste, as defined in section 22a-207 of the General Statutes generated by the work authorized herein in accordance with all applicable law, including Chapters 446e and 446k of the General Statutes.
- (13) Any activity authorized herein shall be conducted so as to minimize adverse impacts to coastal resources and processes.
- (14) Any activity authorized herein shall be conducted so as to minimize adverse impacts to commercial and recreational fishing and shellfishing.
- (15) Any activity authorized herein shall not create an obstruction or hindrance that will have an adverse effect on the flood heights, flood carrying and water capacity of the waterways and floodplains.
- (16) Any activity authorized herein shall not adversely affect existing or designated uses of the waters of the state as defined in Connecticut's Water Quality Standards pursuant to section 22a-426 of the General Statutes.
- (17) In conducting any activity authorized herein, the permittee shall not cause or allow pollution, as defined in section 22a-423 of the General Statutes, including without limitation pollution resulting from erosion and sedimentation.
- (18) In undertaking the work authorized hereunder, the permittee shall not cause or allow pollution of wetlands or watercourses, including pollution resulting from sedimentation and erosion. For purposes of this permit, "pollution" means "pollution" as that term is defined by CGS section 22a-423.
- (19) Except as specifically authorized by this permit, the permittee shall establish a minimum of a 10 foot setback from any wetlands or watercourses in and adjacent to the area where work is to be conducted or areas which are to be used for access to the work area. Such setback area(s) shall be flagged so as to be readily identifiable by contractor personnel until the authorized work is completed.
- (20) Except as specifically authorized by this permit, no equipment or material, including but not limited to, fill, construction materials, excavated material or debris, shall be deposited, placed or stored in any wetland or watercourse on or off-site, or within any delineated setback area, nor shall any wetland, watercourse or delineated setback area be used as a staging area or access way other than as provided herein.

## **Section 6. General Conditions**

### **(a) *Reliance on Registration***

When evaluating a registration, the commissioner relies on information provided by the registrant. If such information proves to be false or incomplete, the authorization issued under this general permit may be suspended or revoked in accordance with law, and the commissioner may take any other legal action provided by law.

### **(b) *Duty to Correct and Report Violations***

Upon learning of a violation of a condition of this general permit, a permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the commissioner within five (5) days of the permittee's learning of such violation. Such report shall be certified in accordance with Section 6(d) of this general permit.

### **(c) *Duty to Provide Information***

If the commissioner requests any information pertinent to the authorized activity or to determine compliance with this general permit, or with the permittee's approval of registration, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with Section 6(d) of this general permit.

### **(d) *Certification of Documents***

Any document, including but not limited to any notice, which is submitted to the commissioner under this general permit shall be signed by, as applicable, the registrant or the permittee in accordance with section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.”

### **(e) *Date of Filing***

For purposes of this general permit, the date of filing with the commissioner of any document is the date such document is received by the commissioner. The word “day” as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday, such deadline shall be the next business day thereafter.

**(f) *False Statements***

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157b of the General Statutes, and in accordance with any other applicable statute.

**(g) *Correction of Inaccuracies***

Within fifteen (15) days after the date a permittee becomes aware of a change in any of the information submitted pursuant to this general permit, becomes aware that any such information is inaccurate or misleading, or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the commissioner. Such information shall be certified in accordance with Section 6(d) of this general permit. The provisions of this subsection shall apply both while a request for approval of registration is pending and after the commissioner has approved such request.

**(h) *Transfer of Authorization***

An approval of registration under this general permit is transferable only in accordance with the provisions of section 22a-6o of the General Statutes.

**(i) *Other Applicable Law***

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

**(j) *Other Rights***

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

## **Section 7. Commissioner's Powers**

**(a) *Abatement of Violations***

The commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with sections 22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the commissioner by law.

(b) ***General Permit Revocation, Suspension, or Modification***

The commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) ***Filing of an Individual Permit Application***

If the commissioner notifies a permittee in writing that such permittee must obtain an individual permit to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if the permittee files an application for an individual permit within sixty (60) days of receiving the commissioner's notice. While such application is pending before the commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of registration. Nothing herein shall affect the commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued Date: October 26, 2015

Robert J. Klee

Commissioner

This is a true and accurate copy of the general permit executed on **October 26, 2015** by the Commissioner of the Department of Energy and Environmental Protection.

STATE OF CONNECTICUT  
DEPARTMENT OF TRANSPORTATION

FLOOD MANAGEMENT GENERAL CERTIFICATION

Project No.: 0126-0174

Description: Bridge No. 01659  
Derby-Shelton Bridge Pedestrian and  
Bicyclist Access Improvements

Town: Derby & Shelton

Date: October 29, 2019

m e m o r a n d u m

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Bacho, P.E.  
2019.10.31  
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to: Mr. Michael E. Masayda  
Trans. Principal Engineer  
Hydraulics and Drainage  
Bureau of Engineering and Highway Operations

from: Mr. Rabi M. Barakat  
for Trans. Principal Engineer  
Bridge CLE Design  
Bureau of Engineering and Construction

Please review this request for Flood Management General Certification and indicate your concurrence below.

**Certification** (to be completed by designer)

*I have read the Flood Management General Certification and the descriptions for the approved DOT minor activities. This project qualifies for the Flood Management General Certification under:*

- ☐ Minor Safety Improvements and Streetscape Projects
- ☐ Roadway Repaving, Maintenance & Underground Utilities
- ☐ Minor Stormwater Drainage Improvements
- ☐ Removal of Sediment or Debris from a Floodplain
- ☐ Wetland Restoration Creation or Enhancement
- ☐ Scour Repairs at Structures; (*Must acquire DEEP Fisheries Concurrence to be eligible*)
- ☐ Guide Rail Installation
- ☐ Deck and Superstructure Replacements
- ☒ Minor Bridge Repairs and Access
- ☐ Fisheries Enhancements
- ☐ Surveying and Testing
- ☒ Bicycle / Pedestrian, Multi Use Trails and Enhancement Projects

*The following required documentation is attached in support of this certification:*

- Project description
- Location plan
- Description of Floodplain involvement and how project qualifies for general certification
- 8-1/2" by 11" excerpt copy of the FEMA Flood Insurance Rate Map (FIRM) and Floodway Boundary Map (if applicable)
- Design plans, (dated October 25, 2019) with FEMA floodplain and floodway boundaries plotted, cross sections and profiles, as necessary, that clearly depict the floodplain involvement
- FEMA 100-year flood elevation plotted on elevation view (for structures)

Print Name: David M. Cicia

David Cicia

Title: Principal Engineer

Signature

2019.10.29

11:57:37-04'00'

Date:

**Concurrence** (to be completed by Hydraulics and Drainage)

Based on the documentation submitted, I hereby concur that the project qualifies for Flood Management General Certification.

*If there are any changes to the proposed activities within the floodplain or floodway, the project must be re-submitted for review and approval.*

Signature

Date 11-4-19

## **Construction Contracts - Required Contract Provisions (FHWA Funded Contracts)**

### **Index**

1. Federal Highway Administration (FHWA) Form 1273 (Revised May 1, 2012)
2. Title VI of the Civil Rights Act of 1964 / Nondiscrimination Requirements
3. Contractor Work Force Utilization (Federal Executive Order 11246) / Specific Equal Employment Opportunity
4. Requirements of Title 49, CFR, Part 26, Participation by DBEs
5. Contract Wage Rates
6. Americans with Disabilities Act of 1990, as Amended
7. Connecticut Statutory Labor Requirements
  - a. Construction, Alteration or Repair of Public Works Projects; Wage Rates
  - b. Debarment List - Limitation on Awarding Contracts
  - c. Construction Safety and Health Course
  - d. Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited
  - e. Residents Preference in Work on Other Public Facilities (Not Applicable to Federal Aid Contracts)
8. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)
9. Executive Orders (State of CT)
10. Non Discrimination Requirement (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised)
11. Whistleblower Provision
12. Connecticut Freedom of Information Act
  - a. Disclosure of Records
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14. Substitution of Securities for Retainages on State Contracts and Subcontracts
15. Health Insurance Portability and Accountability Act of 1996 (HIPAA)
16. Forum and Choice of Law

17. Summary of State Ethics Laws
18. Audit and Inspection of Plants, Places of Business and Records
19. Campaign Contribution Restriction
20. Tangible Personal Property
21. Bid Rigging and/or Fraud – Notice to Contractor
22. Consulting Agreement Affidavit
23. Federal Cargo Preference Act Requirements (46 CFR 381.7(a)-(b))

**Index of Exhibits**

- EXHIBIT A – FHWA Form 1273 (Begins on page 14)
- EXHIBIT B – Title VI Contractor Assurances (page 34)
- EXHIBIT C – Contractor Work Force Utilization (Federal Executive Order 11246) / Equal Employment Opportunity (page 36)
- EXHIBIT D – Health Insurance Portability and Accountability Act of 1996 (HIPAA) (page 43)
- EXHIBIT E – Campaign Contribution Restriction (page 51)
- EXHIBIT F – Federal Wage Rates (Attached at the end)
- EXHIBIT G – State Wage Rates and Other Related Information (Attached at the end)

### **1. Federal Highway Administration (FHWA) Form 1273**

The Contractor shall comply with the Federal Highway Administration (FHWA), Form 1273 attached at Exhibit A, as revised, which is hereby made part of this contract. The Contractor shall also require its subcontractors to comply with the FHWA – Form 1273 and include the FHWA – Form 1273 as an attachment to all subcontracts and purchase orders.

### **2. Title VI of the Civil Rights Act of 1964 / Nondiscrimination Requirements**

The Contractor shall comply with Title VI of the Civil Rights Act of 1964 as amended (42 U.S.C. 2000 et seq.), all requirements imposed by the regulations of the United States Department of Transportation (49 CFR Part 21) issued in implementation thereof, and the Title VI Contractor Assurances attached hereto at Exhibit B, all of which are hereby made a part of this Contract.

### **3. Contractor Work Force Utilization (Federal Executive Order 11246) / Equal Employment Opportunity**

- (a) The Contractor shall comply with the Contractor Work Force Utilization (Federal Executive Order 11246) / Equal Employment Opportunity requirements attached at Exhibit C and hereby made part of this Contract, whenever a contractor or subcontractor at any tier performs construction work in excess of \$10,000. These goals shall be included in each contract and subcontract. Goal achievement is calculated for each trade using the hours worked under each trade.
- (b) Companies with contracts, agreements or purchase orders valued at \$10,000 or more will develop and implement an Affirmative Action Plan utilizing the ConnDOT Affirmative Action Plan Guideline. This Plan shall be designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex or national origin, and to promote the full realization of equal employment opportunity through a positive continuation program. Plans shall be updated as required by ConnDOT.

### **4. Requirements of Title 49, Code of Federal Regulations (CFR), Part 26, Participation by DBEs, as may be revised.**

Pursuant to 49 CFR 26.13, the following paragraph is part of this Contract and shall be included in each subcontract the Contractor enters into with a subcontractor:

“The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26, Participation by DBEs, in the award and administration of U.S. DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this contract or such other remedy as ConnDOT (recipient) deems appropriate, which may include, but is not limited to: (1) Withholding monthly progress payments, (2) Assessing sanctions, (3) Liquidated damages; and/or, (4) Disqualifying the contractor from future bidding as non-responsible.”

## **5. Contract Wage Rates**

The Contractor shall comply with:

The Federal and State wage rate requirements indicated in Exhibits F and G hereof, as revised, are hereby made part of this Contract. The Federal wage rates (Davis-Bacon Act) applicable to this Contract shall be the Federal wage rates that are current on the US Department of Labor website (<http://www.wdol.gov/dba.aspx>) as may be revised 10 days prior to bid opening. These applicable Federal wage rates will be physically incorporated in the final contract document executed by both parties. The Department will no longer physically include revised Federal wage rates in the bid documents or as part of addenda documents, prior to the bid opening date. During the bid advertisement period, bidders are responsible for obtaining the appropriate Federal wage rates from the US Department of Labor website.

To obtain the latest Federal wage rates go to the US Department of Labor website (link above). Under Davis-Bacon Act, choose "Selecting DBA WDs" and follow the instruction to search the latest wage rates for the State, County and Construction Type. Refer to the Notice to Contractor (NTC) - Federal Wage Determinations (Davis Bacon Act).

If a conflict exists between the Federal and State wage rates, the higher rate shall govern.

Prevailing Wages for Work on State Highways; Annual Adjustments. With respect to contracts for work on state highways and bridges on state highways, the Contractor shall comply with the provisions of Section 31-54 and 31-55a of the Connecticut General Statutes, as revised.

As required by Section 1.05.12 (Payrolls) of the State of Connecticut, Department of Transportation's Standard Specification for Roads, Bridges and Incidental Construction (FORM 817), as may be revised, every Contractor or subcontractor performing project work on a Federal aid project is required to post the relevant prevailing wage rates as determined by the United States Secretary of Labor. The wage rate determinations shall be posted in prominent and easily accessible places at the work site.

## **6. Americans with Disabilities Act of 1990, as Amended**

This provision applies to those Contractors who are or will be responsible for compliance with the terms of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. 12101 et seq.), (Act), during the term of the Contract. The Contractor represents that it is familiar with the terms of this Act and that it is in compliance with the Act. Failure of the Contractor to satisfy this standard as the same applies to performance under this Contract, either now or during the term of the Contract as it may be amended, will render the Contract voidable at the option of the State upon notice to the contractor. The Contractor warrants that it will hold the State harmless and indemnify the State from any liability which may be imposed upon the State as a result of any failure of the Contractor to be in compliance with this Act, as the same applies to performance under this Contract.

## **7. Connecticut Statutory Labor Requirements**

**(a) Construction, Alteration or Repair of Public Works Projects; Wage Rates.** The Contractor shall comply with Section 31-53 of the Connecticut General Statutes, as revised. The wages paid on an hourly basis to any person performing the work of any mechanic, laborer or

worker on the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such person to any employee welfare fund, as defined in subsection (i) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such persons to any such employee welfare fund shall pay to each mechanic, laborer or worker as part of such person's wages the amount of payment or contribution for such person's classification on each pay day.

**(b) Debarment List. Limitation on Awarding Contracts.** The Contractor shall comply with Section 31-53a of the Connecticut General Statutes, as revised.

**(c) Construction Safety and Health Course.** The Contractor shall comply with section 31-53b of the Connecticut General Statutes, as revised. The contractor shall furnish proof to the Labor Commissioner with the weekly certified payroll form for the first week each employee begins work on such project that any person performing the work of a mechanic, laborer or worker pursuant to the classifications of labor under section 31-53 of the Connecticut General Statutes, as revised, on such public works project, pursuant to such contract, has completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, has completed a new miner training program approved by the Federal Mine Safety and Health Administration in accordance with 30 CFR 48 or, in the case of telecommunications employees, has completed at least ten hours of training in accordance with 29 CFR 1910.268.

Any employee required to complete a construction safety and health course as required that has not completed the course, shall have a maximum of fourteen (14) days to complete the course. If the employee has not been brought into compliance, they shall be removed from the project until such time as they have completed the required training.

Any costs associated with this notice shall be included in the general cost of the contract. In addition, there shall be no time granted to the contractor for compliance with this notice. The contractor's compliance with this notice and any associated regulations shall not be grounds for claims as outlined in Section 1.11 – "Claims".

**(d) Awarding of Contracts to Occupational Safety and Health Law Violators Prohibited.** The Contract is subject to Section 31-57b of the Connecticut General Statutes, as revised.

**(e) Residents Preference in Work on Other Public Facilities. NOT APPLICABLE TO FEDERAL AID CONTRACTS.** Pursuant to Section 31-52a of the Connecticut General Statutes, as revised, in the employment of mechanics, laborers or workmen to perform the work specified herein, preference shall be given to residents of the state who are, and continuously for at least six months prior to the date hereof have been, residents of this state, and if no such person is available, then to residents of other states

## **8. Tax Liability - Contractor's Exempt Purchase Certificate (CERT – 141)**

The Contractor shall comply with Chapter 219 of the Connecticut General Statutes pertaining to tangible personal property or services rendered that is/are subject to sales tax. The Contractor is

responsible for determining its tax liability. If the Contractor purchases materials or supplies pursuant to the Connecticut Department of Revenue Services' "Contractor's Exempt Purchase Certificate (CERT-141)," as may be revised, the Contractor acknowledges and agrees that title to such materials and supplies installed or placed in the project will vest in the State simultaneously with passage of title from the retailers or vendors thereof, and the Contractor will have no property rights in the materials and supplies purchased.

Forms and instructions are available anytime by:

Internet: Visit the DRS website at [www.ct.gov/DRS](http://www.ct.gov/DRS) to download and print Connecticut tax forms; or  
Telephone: Call 1-800-382-9463 (Connecticut calls outside the Greater Hartford calling area only) and select Option 2 or call 860-297-4753 (from anywhere).

## 9. Executive Orders

This contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the contract as if they had been fully set forth in it. The contract may also be subject to Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services and to Executive Order No. 49 of Governor Dannel P. Malloy, promulgated May 22, 2015, mandating disclosure of certain gifts to public employees and contributions to certain candidates for office. If Executive Order No. 14 and/or Executive Order No. 49 are applicable, they are deemed to be incorporated into and are made a part of the contract as if they had been fully set forth in it. At the Contractor's request, the Department shall provide a copy of these orders to the Contractor.

**10. Non Discrimination Requirement (pursuant to section 4a-60 and 4a-60a of the Connecticut General Statutes, as revised): References to "minority business enterprises" in this Section are not applicable to Federal-aid projects/contracts. Federal-aid projects/contracts are instead subject to the Federal Disadvantaged Business Enterprise Program.**

(a) For purposes of this Section, the following terms are defined as follows:

- (1) "Commission" means the Commission on Human Rights and Opportunities;
- (2) "Contract" and "contract" include any extension or modification of the Contract or contract;
- (3) "Contractor" and "contractor" include any successors or assigns of the Contractor or contractor;
- (4) "Gender identity or expression" means a person's gender-related identity, appearance or behavior, whether or not that gender-related identity, appearance or behavior is different from that traditionally associated with the person's physiology or assigned sex at birth, which gender-related identity can be shown by providing evidence including, but not limited to, medical history, care or treatment of the gender-related identity, consistent and uniform assertion of the gender-related identity or any other evidence that the gender-related identity is sincerely held, part of a person's core identity or not being asserted for an improper purpose.
- (5) "good faith" means that degree of diligence which a reasonable person would exercise in the performance of legal duties and obligations;
- (6) "good faith efforts" shall include, but not be limited to, those reasonable initial efforts necessary to comply with statutory or regulatory requirements and additional or substituted

efforts when it is determined that such initial efforts will not be sufficient to comply with such requirements;

- (7) "marital status" means being single, married as recognized by the state of Connecticut, widowed, separated or divorced;
- (8) "mental disability" means one or more mental disorders, as defined in the most recent edition of the American Psychiatric Association's "Diagnostic and Statistical Manual of Mental Disorders", or a record of or regarding a person as having one or more such disorders;
- (9) "minority business enterprise" means any small contractor or supplier of materials fifty-one percent or more of the capital stock, if any, or assets of which is owned by a person or persons: (1) who are active in the daily affairs of the enterprise, (2) who have the power to direct the management and policies of the enterprise, and (3) who are members of a minority, as such term is defined in subsection (a) of Connecticut General Statutes § 32-9n; and
- (10) "public works contract" means any agreement between any individual, firm or corporation and the State or any political subdivision of the State other than a municipality for construction, rehabilitation, conversion, extension, demolition or repair of a public building, highway or other changes or improvements in real property, or which is financed in whole or in part by the State, including, but not limited to, matching expenditures, grants, loans, insurance or guarantees.

For purposes of this Section, the terms "Contract" and "contract" do not include a contract where each contractor is (1) a political subdivision of the State of Connecticut, including, but not limited to municipalities, unless the contract is a municipal public works contract or quasi-public agency project contract, (2) any other state of the United States, including but not limited to, the District of Columbia, Puerto Rico, U.S. territories and possessions, and federally recognized Indian tribal governments, as defined in Connecticut General Statutes § 1-267, (3) the federal government, (4) a foreign government, or (5) an agency of a subdivision, state or government described in subdivision (1), (2), (3), or (4) of this subsection.

- (b) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by such Contractor that such disability prevents performance of the work involved, in any manner prohibited by the laws of the United States or of the State of Connecticut; and the Contractor further agrees to take affirmative action to insure that applicants with job-related qualifications are employed and that employees are treated when employed without regard to their race, color, religious creed, age, marital status, national origin, ancestry, sex, gender identity or expression, status as a veteran, intellectual disability, mental disability or physical disability, including, but not limited to, blindness, unless it is shown by the Contractor that such disability prevents performance of the work involved; (2) the Contractor agrees, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, to state that it is an "affirmative action-equal opportunity employer" in accordance with regulations adopted by the Commission; (3) the Contractor agrees to provide each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which the Contractor has a contract or understanding, a notice to be provided by the Commission, advising the labor union or workers' representative of the Contractor's commitments under this section and to post copies of the notice in conspicuous places available to employees and applicants for employment; (4) the Contractor

agrees to comply with each provision of this Section and Connecticut General Statutes §§ 46a-68e and 46a-68f and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes §§ 46a-56, 46a-68e and 46a-68f; and (5) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor as relate to the provisions of this Section and Connecticut General Statutes § 46a-56. If the contract is a public works contract, the Contractor agrees and warrants that he will make good faith efforts to employ minority business enterprises as subcontractors and suppliers of materials on such public works projects.

- (c) Determination of the Contractor's good faith efforts shall include, but shall not be limited to, the following factors: The Contractor's employment and subcontracting policies, patterns and practices; affirmative advertising, recruitment and training; technical assistance activities and such other reasonable activities or efforts as the Commission may prescribe that are designed to ensure the participation of minority business enterprises in public works projects.
- (d) The Contractor shall develop and maintain adequate documentation, in a manner prescribed by the Commission, of its good faith efforts.
- (e) The Contractor shall include the provisions of subsection (b) of this Section in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes §46a-56; provided if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.
- (f) The Contractor agrees to comply with the regulations referred to in this Section as they exist on the date of this Contract and as they may be adopted or amended from time to time during the term of this Contract and any amendments thereto.
- (g) (1) The Contractor agrees and warrants that in the performance of the Contract such Contractor will not discriminate or permit discrimination against any person or group of persons on the grounds of sexual orientation, in any manner prohibited by the laws of the United States or the State of Connecticut, and that employees are treated when employed without regard to their sexual orientation; (2) the Contractor agrees to provide each labor union or representative of workers with which such Contractor has a collective bargaining agreement or other contract or understanding and each vendor with which such Contractor has a contract or understanding, a notice to be provided by the Commission on Human Rights and Opportunities advising the labor union or workers' representative of the Contractor's commitments under this section, and to post copies of the notice in conspicuous places available to employees and applicants for employment; (3) the Contractor agrees to comply with each provision of this section and with each regulation or relevant order issued by said Commission pursuant to Connecticut General Statutes § 46a-56; and (4) the Contractor agrees to provide the Commission on Human Rights and Opportunities with such information requested by the Commission, and permit access to pertinent books, records and accounts, concerning the employment practices and procedures of the Contractor which relate to the provisions of this Section and Connecticut General Statutes § 46a-56.
- (h) The Contractor shall include the provisions of the foregoing paragraph in every subcontract or purchase order entered into in order to fulfill any obligation of a contract with the State and such provisions shall be binding on a subcontractor, vendor or manufacturer unless exempted by

regulations or orders of the Commission. The Contractor shall take such action with respect to any such subcontract or purchase order as the Commission may direct as a means of enforcing such provisions including sanctions for noncompliance in accordance with Connecticut General Statutes § 46a-56; provided, if such Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Commission, the Contractor may request the State of Connecticut to enter into any such litigation or negotiation prior thereto to protect the interests of the State and the State may so enter.

Please be aware the Nondiscrimination Certifications can be found at the Office of Policy and Management website:

<https://portal.ct.gov/OPM/Fin-PSA/Forms/Nondiscrimination-Certification>

## **11. Whistleblower Provision**

The following clause is applicable if the Contract has a value of Five Million Dollars (\$5,000,000) or more.

**Whistleblowing.** This Contract may be subject to the provisions of Section 4-61dd of the Connecticut General Statutes. In accordance with this statute, if an officer, employee or appointing authority of the Contractor takes or threatens to take any personnel action against any employee of the Contractor in retaliation for such employee's disclosure of information to any employee of the contracting state or quasi-public agency or the Auditors of Public Accounts or the Attorney General under the provisions of subsection (a) of such statute, the Contractor shall be liable for a civil penalty of not more than five thousand dollars for each offense, up to a maximum of twenty per cent of the value of this Contract. Each violation shall be a separate and distinct offense and in the case of a continuing violation, each calendar day's continuance of the violation shall be deemed to be a separate and distinct offense. The State may request that the Attorney General bring a civil action in the Superior Court for the Judicial District of Hartford to seek imposition and recovery of such civil penalty. In accordance with subsection (f) of such statute, each large state contractor, as defined in the statute, shall post a notice of the provisions of the statute relating to large state contractors in a conspicuous place which is readily available for viewing by the employees of the Contractor.

## **12. Connecticut Freedom of Information Act**

**(a) Disclosure of Records.** This Contract may be subject to the provisions of section 1-218 of the Connecticut General Statutes. In accordance with this statute, each contract in excess of two million five hundred thousand dollars between a public agency and a person for the performance of a governmental function shall (a) provide that the public agency is entitled to receive a copy of records and files related to the performance of the governmental function, and (b) indicate that such records and files are subject to FOIA and may be disclosed by the public agency pursuant to FOIA. No request to inspect or copy such records or files shall be valid unless the request is made to the public agency in accordance with FOIA. Any complaint by a person who is denied the right to inspect or copy such records or files shall be brought to the Freedom of Information Commission in accordance with the provisions of sections 1-205 and 1-206 of the Connecticut General Statutes.

**(b) Confidential Information.** The State will afford due regard to the Contractor's request for the protection of proprietary or confidential information which the State receives from the Contractor. However, all materials associated with the Contract are subject to the terms of the FOIA and all corresponding rules, regulations and interpretations. In making such a request, the Contractor may not merely state generally that the materials are proprietary or confidential in nature and not, therefore, subject to release to third parties. Those particular

sentences, paragraphs, pages or sections that the Contractor believes are exempt from disclosure under the FOIA must be specifically identified as such. Convincing explanation and rationale sufficient to justify each exemption consistent with the FOIA must accompany the request. The rationale and explanation must be stated in terms of the prospective harm to the competitive position of the Contractor that would result if the identified material were to be released and the reasons why the materials are legally exempt from release pursuant to the FOIA. To the extent that any other provision or part of the Contract conflicts or is in any way inconsistent with this section, this section controls and shall apply and the conflicting provision or part shall not be given effect. If the Contractor indicates that certain documentation is submitted in confidence, by specifically and clearly marking the documentation as "CONFIDENTIAL," DOT will first review the Contractor's claim for consistency with the FOIA (that is, review that the documentation is actually a trade secret or commercial or financial information and not required by statute), and if determined to be consistent, will endeavor to keep such information confidential to the extent permitted by law. See, *e.g.*, Conn. Gen. Stat. §1-210(b)(5)(A-B). The State, however, has no obligation to initiate, prosecute or defend any legal proceeding or to seek a protective order or other similar relief to prevent disclosure of any information that is sought pursuant to a FOIA request. Should the State withhold such documentation from a Freedom of Information requester and a complaint be brought to the Freedom of Information Commission, the Contractor shall have the burden of cooperating with DOT in defense of that action and in terms of establishing the availability of any FOIA exemption in any proceeding where it is an issue. In no event shall the State have any liability for the disclosure of any documents or information in its possession which the State believes are required to be disclosed pursuant to the FOIA or other law.

### **13. Service of Process**

The Contractor, if not a resident of the State of Connecticut, or, in the case of a partnership, the partners, if not residents, hereby appoints the Secretary of State of the State of Connecticut, and his successors in office, as agent for service of process for any action arising out of or as a result of this Contract; such appointment to be in effect throughout the life of this Contract and six (6) years thereafter.

### **14. Substitution of Securities for Retainages on State Contracts and Subcontracts**

This Contract is subject to the provisions of Section 3-112a of the General Statutes of the State of Connecticut, as revised.

### **15. Health Insurance Portability and Accountability Act of 1996 (HIPAA)**

The Contractor shall comply, if applicable, with the Health Insurance Portability and Accountability Act of 1996 and, pursuant thereto, the provisions attached at Exhibit D, and hereby made part of this Contract.

### **16. Forum and Choice of Law**

Forum and Choice of Law. The parties deem the Contract to have been made in the City of Hartford, State of Connecticut. Both parties agree that it is fair and reasonable for the validity and construction of the Contract to be, and it shall be, governed by the laws and court decisions of the State of

Connecticut, without giving effect to its principles of conflicts of laws. To the extent that any immunities provided by Federal law or the laws of the State of Connecticut do not bar an action against the State, and to the extent that these courts are courts of competent jurisdiction, for the purpose of venue, the complaint shall be made returnable to the Judicial District of Hartford only or shall be brought in the United States District Court for the District of Connecticut only, and shall not be transferred to any other court, provided, however, that nothing here constitutes a waiver or compromise of the sovereign immunity of the State of Connecticut. The Contractor waives any objection which it may now have or will have to the laying of venue of any Claims in any forum and further irrevocably submits to such jurisdiction in any suit, action or proceeding.

## **17. Summary of State Ethics Laws**

Pursuant to the requirements of section 1-101qq of the Connecticut General Statutes, the summary of State ethics laws developed by the State Ethics Commission pursuant to section 1-81b of the Connecticut General Statutes is incorporated by reference into and made a part of the Contract as if the summary had been fully set forth in the Contract.

## **18. Audit and Inspection of Plants, Places of Business and Records**

- (a) The State and its agents, including, but not limited to, the Connecticut Auditors of Public Accounts, Attorney General and State's Attorney and their respective agents, may, at reasonable hours, inspect and examine all of the parts of the Contractor's and Contractor Parties' plants and places of business which, in any way, are related to, or involved in, the performance of this Contract. For the purposes of this Section, "Contractor Parties" means the Contractor's members, directors, officers, shareholders, partners, managers, principal officers, representatives, agents, servants, consultants, employees or any one of them or any other person or entity with whom the Contractor is in privity of oral or written contract and the Contractor intends for such other person or entity to Perform under the Contract in any capacity.
- (b) The Contractor shall maintain, and shall require each of the Contractor Parties to maintain, accurate and complete Records. The Contractor shall make all of its and the Contractor Parties' Records available at all reasonable hours for audit and inspection by the State and its agents.
- (c) The State shall make all requests for any audit or inspection in writing and shall provide the Contractor with at least twenty-four (24) hours' notice prior to the requested audit and inspection date. If the State suspects fraud or other abuse, or in the event of an emergency, the State is not obligated to provide any prior notice.
- (d) The Contractor shall keep and preserve or cause to be kept and preserved all of its and Contractor Parties' Records until three (3) years after the latter of (i) final payment under this Agreement, or (ii) the expiration or earlier termination of this Agreement, as the same may be modified for any reason. The State may request an audit or inspection at any time during this period. If any Claim or audit is started before the expiration of this period, the Contractor shall retain or cause to be retained all Records until all Claims or audit findings have been resolved.
- (e) The Contractor shall cooperate fully with the State and its agents in connection with an audit or inspection. Following any audit or inspection, the State may conduct and the Contractor shall cooperate with an exit conference.
- (f) The Contractor shall incorporate this entire Section verbatim into any contract or other agreement that it enters into with any Contractor Party.

## **19. Campaign Contribution Restriction**

For all State contracts, defined in Conn. Gen. Stat. §9-612(f)(1) as having a value in a calendar year of \$50,000 or more, or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this contract expressly acknowledges receipt of the State

Elections Enforcement Commission's notice advising state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice, as set forth in "Notice to Executive Branch State Contractors and Prospective State Contractors of Campaign Contribution and Solicitation Limitations," a copy of which is attached hereto and hereby made a part of this contract, attached as Exhibit E.

## **20. Tangible Personal Property**

- (a) The Contractor on its behalf and on behalf of its Affiliates, as defined below, shall comply with the provisions of Conn. Gen. Stat. §12-411b, as follows:
- (1) For the term of the Contract, the Contractor and its Affiliates shall collect and remit to the State of Connecticut, Department of Revenue Services, any Connecticut use tax due under the provisions of Chapter 219 of the Connecticut General Statutes for items of tangible personal property sold by the Contractor or by any of its Affiliates in the same manner as if the Contractor and such Affiliates were engaged in the business of selling tangible personal property for use in Connecticut and had sufficient nexus under the provisions of Chapter 219 to be required to collect Connecticut use tax;
  - (2) A customer's payment of a use tax to the Contractor or its Affiliates relieves the customer of liability for the use tax;
  - (3) The Contractor and its Affiliates shall remit all use taxes they collect from customers on or before the due date specified in the Contract, which may not be later than the last day of the month next succeeding the end of a calendar quarter or other tax collection period during which the tax was collected;
  - (4) The Contractor and its Affiliates are not liable for use tax billed by them but not paid to them by a customer; and
  - (5) Any Contractor or Affiliate who fails to remit use taxes collected on behalf of its customers by the due date specified in the Contract shall be subject to the interest and penalties provided for persons required to collect sales tax under chapter 219 of the general statutes.
- (b) For purposes of this section of the Contract, the word "Affiliate" means any person, as defined in section 12-1 of the general statutes, that controls, is controlled by, or is under common control with another person. A person controls another person if the person owns, directly or indirectly, more than ten per cent of the voting securities of the other person. The word "voting security" means a security that confers upon the holder the right to vote for the election of members of the board of directors or similar governing body of the business, or that is convertible into, or entitles the holder to receive, upon its exercise, a security that confers such a right to vote. "Voting security" includes a general partnership interest.
- (c) The Contractor represents and warrants that each of its Affiliates has vested in the Contractor plenary authority to so bind the Affiliates in any agreement with the State of Connecticut. The Contractor on its own behalf and on behalf of its Affiliates shall also provide, no later than 30 days after receiving a request by the State's contracting authority, such information as the State may require to ensure, in the State's sole determination, compliance with the provisions of Chapter 219 of the Connecticut General Statutes, including, but not limited to, §12-411b.

## **21. Bid Rigging and/or Fraud – Notice to Contractor**

The Connecticut Department of Transportation is cooperating with the U.S. Department of Transportation and the Justice Department in their investigation into highway construction contract bid rigging and/or fraud.

A toll-free "HOT LINE" telephone number 800-424-9071 has been established to receive information from contractors, subcontractors, manufacturers, suppliers or anyone with knowledge of bid rigging and/or fraud, either past or current. The "HOT LINE" telephone number will be available during

normal working hours (8:00 am – 5:00 pm EST). Information will be treated confidentially and anonymity respected.

## **22. Consulting Agreement Affidavit**

The Contractor shall comply with Connecticut General Statutes Section 4a-81(a) and 4a-81(b), as revised. Pursuant to Public Act 11-229, after the initial submission of the form, if there is a change in the information contained in the form, a contractor shall submit the updated form, as applicable, either (i) not later than thirty (30) days after the effective date of such change or (ii) prior to execution of any new contract, whichever is earlier.

The Affidavit/Form may be submitted in written format or electronic format through the Department of Administrative Services (DAS) website.

## **23. Cargo Preference Act Requirements (46 CFR 381.7(a)-(b)) – Use of United States Flag Vessels**

The Contractor agrees to comply with the following:

### **(a) *Agreement Clauses.***

- (1) Pursuant to Pub. L. 664 ([43 U.S.C. 1241\(b\)](#)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.
- (2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

### **(b) *Contractor and Subcontractor Clauses.*** The contractor agrees—

- (1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.
- (2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.
- (3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

## **EXHIBIT A**

FHWA-1273 -- Revised May 1, 2012

### **REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

#### **I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

## **II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

## **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26, and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### **III. NONSEGREGATED FACILITIES**

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for

employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

#### **IV. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

##### **1. Minimum wages**

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## **2. Withholding**

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same

prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

### **3. Payrolls and basic records**

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee ( e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the “Statement of Compliance” required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### **4. Apprentices and trainees**

##### **a. Apprentices (programs of the USDOL).**

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise

employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

## V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be

performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).
3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

#### **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

## **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers to any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

\* \* \* \* \*

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

**2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and

1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

#### **Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

## **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

## EXHIBIT B

### TITLE VI CONTRACTOR ASSURANCES APPENDIX A

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Regulations relative to Nondiscrimination in Federally-assisted programs of the United States Department of Transportation Federal Highway Administration and Federal Transit Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. **Nondiscrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, disability, income or Limited English Proficiency in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration or Federal Transit Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor will so certify to the Recipient or the Federal Highway Administration or the Federal Transit Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Non-compliance:** In the event of the contractor's non-compliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration or the Federal Transit Administration may determine to be appropriate, including, but not limited to:

- a. withholding contract payments to the contractor under the contract until the contractor complies; and/or
- b. cancelling, terminating, or suspending a contract, in whole or in part.

6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration or the Federal Transit Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with, litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

## TITLE VI CONTRACTOR ASSURANCES APPENDIX E

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following nondiscrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. § 2000d et seq.), (prohibits discrimination on the basis of race, color, national origin), as implemented by 49 C.F.R. § 21.1 et seq. and 49 C.F.R. part 303;
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601) (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973 (23 U.S.C. § 324 et seq.) (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794 et seq.) (prohibits discrimination on the basis of disability); and 49 C.F.R. part 27;
- The Age Discrimination Act of 1975, as amended (42 U.S.C. § 6101 et seq.) (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982 (Pub. L. 97-248 (1982)), as amended (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987 (102 Stat. 28) ("*... which restore[d] the broad scope of coverage and to clarify the application of Title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, and Title VI of the Civil Rights Act of 1964.*");
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 --12189), as implemented by Department of Justice regulations at 28 C.F.R. parts 35 and 36, and Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;

- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. § 1681 et seq).

## **EXHIBIT C**

### **CONTRACTOR WORKFORCE UTILIZATION (FEDERAL EXECUTIVE ORDER 11246) / EQUAL EMPLOYMENT OPPORTUNITY (Federal - FHWA)**

#### **1. Project Workforce Utilization Goals:**

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted or funded) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where the work is actually performed.

Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications which contain the applicable goals for minority and female participation.

The goals for minority and female utilization are expressed in percentage terms for the contractor's aggregate work-force in each trade on all construction work in the covered area, are referenced in the attached Appendix A.

#### **2. Executive Order 11246**

The Contractor's compliance with Executive Order 11246 and 41-CFR Part 60-4 shall be based on its implementation of the specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(A) and its efforts to meet the goals established for the geographical area where the contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hour performed.

If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan.

Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or subcontractors toward a goal in an approved Pan does not excuse any covered Contractor's of subcontractor's failure to take good faith efforts to achieve the plan goals and timetables.

The Contractor shall implement the specific affirmative action standards provided in a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs (OFCCP) Office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractors obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant hereto.

In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

- a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites; and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community

organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

- c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason thereafter; along with whatever additional actions the Contractor may have taken.
- d. Provide immediate written notification to the Director when the Union or Unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or women sent by the Contractor, or when the Contractor has other information that the Union referral process has impeded the Contractor's efforts to meet its obligations.
- e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under b above.
- f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO Policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review, at least annually, the company EEO Policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment, decisions including specific Foreman, etc. prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the Contractor's EEO Policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and subcontractors with whom the Contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor

shall send written notification to organizations such as the above, describing the openings, screening procedures and tests to be used in the selection process.

- j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work-force.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
- p. Conduct a review at least annually of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (a through p). The efforts of a contractor association, joint contractor union, contractor community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under a through p of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work-force participation, makes a good faith effort to meet with individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of Executive Order 11246 if a particular group is employed in a substantially disparate manner, (for example, even though the

Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is under utilized).

The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status, (e.g. mechanic, apprentice, trainee, helper, or laborer) dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

Nothing herein provided shall be construed as a limitation upon the application of their laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g. those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

The Director of the Office of Federal Contract Compliance Programs, from time to time, shall issue goals and timetables for minority and female utilization which shall be based on appropriate work-force, demographic or other relevant data and which shall cover construction projects or construction contracts performed in specific geographical areas. The goals, which shall be applicable to each construction trade in a covered contractor's or timetables, shall be published as notices in the Federal Register, and shall be inserted by the Contracting officers and applicants, as applicable, in the Notice required by 41 CFR 60-4.2.

**FEDERALLY FUNDED OR ASSISTED PROJECTS**  
**APPENDIX A**  
**(Labor Market Goals)**

**Standard Metropolitan Statistical Area (SMSA)**

**Female**

**Minority**

<b>Bridgeport – Stamford – Norwalk – Danbury</b>				<b>10.2%</b>
<b>6.9%</b>				

Bethel	Bridgeport	Brookfield	Danbury
Darien	Derby	Easton	Fairfield
Greenwich	Milford	Monroe	New Canaan
New Fairfield	Newton	Norwalk	Redding
Shelton	Stamford	Stratford	Trumbull
Weston	Westport	Wilton	

<b>Hartford – Bristol – New Britain</b>				<b>6.9%</b>
<b>6.9%</b>				

Andover	Avon	Berlin	Bloomfield
Bolton	Bristol	Burlington	Canton
Colchester	Columbia	Coventry	Cromwell
East Granby	East Hampton	East Hartford	East Windsor
Ellington	Enfield	Farmington	Glastonbury
Granby	Hartford	Hebron	Manchester
Marlborough	New Britain	New Hartford	Newington
Plainville	Plymouth	Portland	Rocky Hill
Simsbury	South Windsor	Southington	Stafford
Suffield	Tolland	Vernon	West Hartford
Wethersfield	Willington	Windsor	Windsor Locks

<b>New Haven – Waterbury – Meriden</b>				<b>9.0%</b>
<b>6.9%</b>				

Beacon Falls	Bethany	Branford	Cheshire
Clinton	East Haven	Guilford	Hamden
Madison	Meriden	Middlebury	Naugatuck
New Haven	North Branford	North Haven	Orange
Prospect	Southbury	Thomaston	Wallingford
Waterbury	Watertown	West Haven	Wolcott
Woodbridge	Woodbury		

<b>New London – Norwich</b>				<b>4.5%</b>
<b>6.9%</b>				

Bozrah	East Lyme	Griswold	Groton
Ledyard	Lisbon	Montville	New London

Norwich  
SpragueOld Lyme  
StoningtonOld Saybrook  
Waterford

Preston

**Non SMSA****Female****Minority****Litchfield – Windham****5.9%****6.9%**

Abington	Ashford	Ballouville	Bantam
Barkhamsted	Bethlehem	Bridgewater	Brooklyn
Canaan	Canterbury	Central Village	Cahplin
Colebrook	Cornwall	Cornwall Bridge	Danielson
Dayville	East Canaan	East Killingly	East Woodstock
Eastford	Falls Village	Gaylordsville	Goshen
Grosvenor Dale	Hampton	Harwinton	Kent
Killigly	Lakeside	Litchfield	Moosup
Morris	New Milford	New Preston	New Preston Marble Dale
Norfolk	North Canaan	No. Grosvenordale	North Windham
Oneco	Pequabuck	Pine Meadow	Plainfield
Pleasant Valley	Pomfret	Pomfret Center	Putnam
Quinebaug	Riverton	Rogers	Roxbury
Salisbury	Scotland	Sharon	South Kent
South Woodstock	Sterling	Taconic	Terryville
Thompson	Torrington	Warren	Warrenville
Washington	Washington Depot	Wauregan	West Cornwall
Willimantic	Winchester	Winchester Center	Windham
Winsted	Woodstock	Woodstock Valley	

## EXHIBIT D

### Health Insurance Portability and Accountability Act of 1996 (“HIPAA”).

- (a) If the Contactor is a Business Associate under the requirements of the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), the Contractor must comply with all terms and conditions of this Section of the Contract. If the Contractor is not a Business Associate under HIPAA, this Section of the Contract does not apply to the Contractor for this Contract.
- (b) The Contractor is required to safeguard the use, publication and disclosure of information on all applicants for, and all clients who receive, services under the Contract in accordance with all applicable federal and state law regarding confidentiality, which includes but is not limited to HIPAA, more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E; and
- (c) The State of Connecticut Agency named on page 1 of this Contract (hereinafter the “Department”) is a “covered entity” as that term is defined in 45 C.F.R. § 160.103; and
- (d) The Contractor, on behalf of the Department, performs functions that involve the use or disclosure of “individually identifiable health information,” as that term is defined in 45 C.F.R. § 160.103; and
- (e) The Contractor is a “business associate” of the Department, as that term is defined in 45 C.F.R. § 160.103; and
- (f) The Contractor and the Department agree to the following in order to secure compliance with the HIPAA, the requirements of Subtitle D of the Health Information Technology for Economic and Clinical Health Act (hereinafter the HITECH Act), (Pub. L. 111-5, sections 13400 to 13423), and more specifically with the Privacy and Security Rules at 45 C.F.R. Part 160 and Part 164, subparts A, C, and E.
- (g) Definitions
  - (1) “Breach shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(1))
  - (2) “Business Associate” shall mean the Contractor.
  - (3) “Covered Entity” shall mean the Department of the State of Connecticut named on page 1 of this Contract.
  - (4) “Designated Record Set” shall have the same meaning as the term “designated record set” in 45 C.F.R. § 164.501.
  - (5) “Electronic Health Record” shall have the same meaning as the term is defined in section 13400 of the HITECH Act (42 U.S.C. §17921(5))

- (6) "Individual" shall have the same meaning as the term "individual" in 45 C.F.R. § 160.103 and shall include a person who qualifies as a personal representative as defined in 45 C.F.R. § 164.502(g).
  - (7) "Privacy Rule" shall mean the Standards for Privacy of Individually Identifiable Health Information at 45 C.F.R. part 160 and parts 164, subparts A and E.
  - (8) "Protected Health Information" or "PHI" shall have the same meaning as the term "protected health information" in 45 C.F.R. § 160.103, limited to information created or received by the Business Associate from or on behalf of the Covered Entity.
  - (9) "Required by Law" shall have the same meaning as the term "required by law" in 45 C.F.R. § 164.103.
  - (10) "Secretary" shall mean the Secretary of the Department of Health and Human Services or his designee.
  - (11) "More stringent" shall have the same meaning as the term "more stringent" in 45 C.F.R. § 160.202.
  - (12) "This Section of the Contract" refers to the HIPAA Provisions stated herein, in their entirety.
  - (13) "Security Incident" shall have the same meaning as the term "security incident" in 45 C.F.R. § 164.304.
  - (14) "Security Rule" shall mean the Security Standards for the Protection of Electronic Protected Health Information at 45 C.F.R. part 160 and parts 164, subpart A and C.
  - (15) "Unsecured protected health information" shall have the same meaning as the term as defined in section 13402(h)(1)(A) of HITECH. Act. (42 U.S.C. § 17932(h)(1)(A)).
- (h) Obligations and Activities of Business Associates.
- (1) Business Associate agrees not to use or disclose PHI other than as permitted or required by this Section of the Contract or as Required by Law.
  - (2) Business Associate agrees to use appropriate safeguards to prevent use or disclosure of PHI other than as provided for in this Section of the Contract.
  - (3) Business Associate agrees to use administrative, physical and technical safeguards that reasonably and appropriately protect the confidentiality, integrity, and availability of electronic protected health information that it creates, receives, maintains, or transmits on behalf of the Covered Entity.

- (4) Business Associate agrees to mitigate, to the extent practicable, any harmful effect that is known to the Business Associate of a use or disclosure of PHI by Business Associate in violation of this Section of the Contract.
- (5) Business Associate agrees to report to Covered Entity any use or disclosure of PHI not provided for by this Section of the Contract or any security incident of which it becomes aware.
- (6) Business Associate agrees to insure that any agent, including a subcontractor, to whom it provides PHI received from, or created or received by Business Associate, on behalf of the Covered Entity, agrees to the same restrictions and conditions that apply through this Section of the Contract to Business Associate with respect to such information.
- (7) Business Associate agrees to provide access, at the request of the Covered Entity, and in the time and manner agreed to by the parties, to PHI in a Designated Record Set, to Covered Entity or, as directed by Covered Entity, to an Individual in order to meet the requirements under 45 C.F.R. § 164.524.
- (8) Business Associate agrees to make any amendments to PHI in a Designated Record Set that the Covered Entity directs or agrees to pursuant to 45 C.F.R. § 164.526 at the request of the Covered Entity, and in the time and manner agreed to by the parties.
- (9) Business Associate agrees to make internal practices, books, and records, including policies and procedures and PHI, relating to the use and disclosure of PHI received from, or created or received by, Business Associate on behalf of Covered Entity, available to Covered Entity or to the Secretary in a time and manner agreed to by the parties or designated by the Secretary, for purposes of the Secretary determining Covered Entity's compliance with the Privacy Rule.
- (10) Business Associate agrees to document such disclosures of PHI and information related to such disclosures as would be required for Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (11) Business Associate agrees to provide to Covered Entity, in a time and manner agreed to by the parties, information collected in accordance with clause h. (10) of this Section of the Contract, to permit Covered Entity to respond to a request by an Individual for an accounting of disclosures of PHI in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder. Business Associate agrees at the Covered Entity's direction to provide an accounting of disclosures of PHI directly to an individual in accordance with 45 C.F.R. § 164.528 and section 13405 of the HITECH Act (42 U.S.C. § 17935) and any regulations promulgated thereunder.
- (12) Business Associate agrees to comply with any state or federal law that is more stringent than the Privacy Rule.

- (13) Business Associate agrees to comply with the requirements of the HITECH Act relating to privacy and security that are applicable to the Covered Entity and with the requirements of 45 C.F.R. sections 164.504(e), 164.308, 164.310, 164.312, and 164.316.
- (14) In the event that an individual requests that the Business Associate (a) restrict disclosures of PHI; (b) provide an accounting of disclosures of the individual's PHI; or (c) provide a copy of the individual's PHI in an electronic health record, the Business Associate agrees to notify the covered entity, in writing, within two business days of the request.
- (15) Business Associate agrees that it shall not, directly or indirectly, receive any remuneration in exchange for PHI of an individual without (1) the written approval of the covered entity, unless receipt of remuneration in exchange for PHI is expressly authorized by this Contract and (2) the valid authorization of the individual, except for the purposes provided under section 13405(d)(2) of the HITECH Act,(42 U.S.C. § 17935(d)(2)) and in any accompanying regulations
- (16) Obligations in the Event of a Breach
  - A. The Business Associate agrees that, following the discovery of a breach of unsecured protected health information, it shall notify the Covered Entity of such breach in accordance with the requirements of section 13402 of HITECH (42 U.S.C. 17932(b) and the provisions of this Section of the Contract.
  - B. Such notification shall be provided by the Business Associate to the Covered Entity without unreasonable delay, and in no case later than 30 days after the breach is discovered by the Business Associate, except as otherwise instructed in writing by a law enforcement official pursuant to section 13402 (g) of HITECH (42 U.S.C. 17932(g)) . A breach is considered discovered as of the first day on which it is, or reasonably should have been, known to the Business Associate. The notification shall include the identification and last known address, phone number and email address of each individual (or the next of kin of the individual if the individual is deceased) whose unsecured protected health information has been, or is reasonably believed by the Business Associate to have been, accessed, acquired, or disclosed during such breach.
  - C. The Business Associate agrees to include in the notification to the Covered Entity at least the following information:
    - 1. A brief description of what happened, including the date of the breach and the date of the discovery of the breach, if known.
    - 2. A description of the types of unsecured protected health information that were involved in the breach (such as full name, Social Security number, date of birth, home address, account number, or disability code).
    - 3. The steps the Business Associate recommends that individuals take to protect themselves from potential harm resulting from the breach.

4. A detailed description of what the Business Associate is doing to investigate the breach, to mitigate losses, and to protect against any further breaches.
  5. Whether a law enforcement official has advised either verbally or in writing the Business Associate that he or she has determined that notification or notice to individuals or the posting required under section 13402 of the HITECH Act would impede a criminal investigation or cause damage to national security and; if so, include contact information for said official.
- D. Business Associate agrees to provide appropriate staffing and have established procedures to ensure that individuals informed by the Covered Entity of a breach by the Business Associate have the opportunity to ask questions and contact the Business Associate for additional information regarding the breach. Such procedures shall include a toll-free telephone number, an e-mail address, a posting on its Web site and a postal address. Business Associate agrees to include in the notification of a breach by the Business Associate to the Covered Entity, a written description of the procedures that have been established to meet these requirements. Costs of such contact procedures will be borne by the Contractor.
- E. Business Associate agrees that, in the event of a breach, it has the burden to demonstrate that it has complied with all notifications requirements set forth above, including evidence demonstrating the necessity of a delay in notification to the Covered Entity.
- (i) Permitted Uses and Disclosure by Business Associate.
- (1) General Use and Disclosure Provisions Except as otherwise limited in this Section of the Contract, Business Associate may use or disclose PHI to perform functions, activities, or services for, or on behalf of, Covered Entity as specified in this Contract, provided that such use or disclosure would not violate the Privacy Rule if done by Covered Entity or the minimum necessary policies and procedures of the Covered Entity.
  - (2) Specific Use and Disclosure Provisions
    - (A) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI for the proper management and administration of Business Associate or to carry out the legal responsibilities of Business Associate.
    - (B) Except as otherwise limited in this Section of the Contract, Business Associate may disclose PHI for the proper management and administration of Business Associate, provided that disclosures are Required by Law, or Business Associate obtains reasonable assurances from the person to whom the information is disclosed that it will remain confidential and used or further disclosed only as Required by Law or

for the purpose for which it was disclosed to the person, and the person notifies Business Associate of any instances of which it is aware in which the confidentiality of the information has been breached.

(C) Except as otherwise limited in this Section of the Contract, Business Associate may use PHI to provide Data Aggregation services to Covered Entity as permitted by 45 C.F.R. § 164.504(e)(2)(i)(B).

(j) Obligations of Covered Entity.

(1) Covered Entity shall notify Business Associate of any limitations in its notice of privacy practices of Covered Entity, in accordance with 45 C.F.R. § 164.520, or to the extent that such limitation may affect Business Associate's use or disclosure of PHI.

(2) Covered Entity shall notify Business Associate of any changes in, or revocation of, permission by Individual to use or disclose PHI, to the extent that such changes may affect Business Associate's use or disclosure of PHI.

(3) Covered Entity shall notify Business Associate of any restriction to the use or disclosure of PHI that Covered Entity has agreed to in accordance with 45 C.F.R. § 164.522, to the extent that such restriction may affect Business Associate's use or disclosure of PHI.

(k) Permissible Requests by Covered Entity. Covered Entity shall not request Business Associate to use or disclose PHI in any manner that would not be permissible under the Privacy Rule if done by the Covered Entity, except that Business Associate may use and disclose PHI for data aggregation, and management and administrative activities of Business Associate, as permitted under this Section of the Contract.

(l) Term and Termination.

(1) Term. The Term of this Section of the Contract shall be effective as of the date the Contract is effective and shall terminate when the information collected in accordance with clause h. (10) of this Section of the Contract is provided to the Covered Entity and all of the PHI provided by Covered Entity to Business Associate, or created or received by Business Associate on behalf of Covered Entity, is destroyed or returned to Covered Entity, or, if it is infeasible to return or destroy PHI, protections are extended to such information, in accordance with the termination provisions in this Section.

(2) Termination for Cause Upon Covered Entity's knowledge of a material breach by Business Associate, Covered Entity shall either:

(A) Provide an opportunity for Business Associate to cure the breach or end the violation and terminate the Contract if Business Associate does not cure the breach or end the violation within the time specified by the Covered Entity; or

(B) Immediately terminate the Contract if Business Associate has breached a material term of this Section of the Contract and cure is not possible; or

- (C) If neither termination nor cure is feasible, Covered Entity shall report the violation to the Secretary.

(3) Effect of Termination

- (A) Except as provided in (1)(2) of this Section of the Contract, upon termination of this Contract, for any reason, Business Associate shall return or destroy all PHI received from Covered Entity, or created or received by Business Associate on behalf of Covered Entity. Business Associate shall also provide the information collected in accordance with clause h. (10) of this Section of the Contract to the Covered Entity within ten business days of the notice of termination. This provision shall apply to PHI that is in the possession of subcontractors or agents of Business Associate. Business Associate shall retain no copies of the PHI.
- (B) In the event that Business Associate determines that returning or destroying the PHI is infeasible, Business Associate shall provide to Covered Entity notification of the conditions that make return or destruction infeasible. Upon documentation by Business Associate that return or destruction of PHI is infeasible, Business Associate shall extend the protections of this Section of the Contract to such PHI and limit further uses and disclosures of PHI to those purposes that make return or destruction infeasible, for as long as Business Associate maintains such PHI. Infeasibility of the return or destruction of PHI includes, but is not limited to, requirements under state or federal law that the Business Associate maintains or preserves the PHI or copies thereof.

(m) Miscellaneous Provisions.

- (1) Regulatory References. A reference in this Section of the Contract to a section in the Privacy Rule means the section as in effect or as amended.
- (2) Amendment. The Parties agree to take such action as is necessary to amend this Section of the Contract from time to time as is necessary for Covered Entity to comply with requirements of the Privacy Rule and the Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191.
- (3) Survival. The respective rights and obligations of Business Associate shall survive the termination of this Contract.
- (4) Effect on Contract. Except as specifically required to implement the purposes of this Section of the Contract, all other terms of the Contract shall remain in force and effect.
- (5) Construction. This Section of the Contract shall be construed as broadly as necessary to implement and comply with the Privacy Standard. Any ambiguity in this Section of the Contract shall be resolved in favor of a meaning that complies, and is consistent with, the Privacy Standard.

(6) Disclaimer. Covered Entity makes no warranty or representation that compliance with this Section of the Contract will be adequate or satisfactory for Business Associate's own purposes. Covered Entity shall not be liable to Business Associate for any claim, civil or criminal penalty, loss or damage related to or arising from the unauthorized use or disclosure of PHI by Business Associate or any of its officers, directors, employees, contractors or agents, or any third party to whom Business Associate has disclosed PHI contrary to the provisions of this Contract or applicable law. Business Associate is solely responsible for all decisions made, and actions taken, by Business Associate regarding the safeguarding, use and disclosure of PHI within its possession, custody or control.

(7) Indemnification. The Business Associate shall indemnify and hold the Covered Entity harmless from and against any and all claims, liabilities, judgments, fines, assessments, penalties, awards and any statutory damages that may be imposed or assessed pursuant to HIPAA, as amended or the HITECH Act, including, without limitation, attorney's fees, expert witness fees, costs of investigation, litigation or dispute resolution, and costs awarded thereunder, relating to or arising out of any violation by the Business Associate and its agents, including subcontractors, of any obligation of Business Associate and its agents, including subcontractors, under this section of the contract, under HIPAA, the HITECH Act, the Privacy Rule and the Security Rule.

**Notice to Executive Branch State Contractors and Prospective State  
 Contractors of Campaign Contribution and Solicitation Limitations**

This notice is provided under the authority of Connecticut General Statutes §9-612 (f) (2) and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined on the reverse side of this page).

**CAMPAIGN CONTRIBUTION AND SOLICITATION LIMITATIONS**

No *state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract or state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder, of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee (which includes town committees).

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

On and after January 1, 2011, no state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor, with regard to a state contract or state contract solicitation with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall **knowingly solicit** contributions from the state contractor's or prospective state contractor's employees or from a *subcontractor or principals of the subcontractor* on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

**DUTY TO INFORM**

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

**PENALTIES FOR VIOLATIONS**

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

**Civil penalties**—Up to \$2,000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of up to \$2,000 or twice the amount of the prohibited contributions made by their principals.

**Criminal penalties**—Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or not more than \$5,000 in fines, or both.

**CONTRACT CONSEQUENCES**

In the case of a state contractor, contributions made or solicited in violation of the above prohibitions may result in the contract being voided.

In the case of a prospective state contractor, contributions made or solicited in violation of the above prohibitions shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State shall not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information may be found on the website of the State Elections Enforcement Commission, [www.ct.gov/seec](http://www.ct.gov/seec). Click on the link to "Lobbyist/Contractor Limitations."

## DEFINITIONS

“State contractor” means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. “State contractor” does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person’s capacity as a state or quasi-public agency employee.

“Prospective state contractor” means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. “Prospective state contractor” does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person’s capacity as a state or quasi-public agency employee.

“Principal of a state contractor or prospective state contractor” means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract*, (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

“State contract” means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. “State contract” does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan, a loan to an individual for other than commercial purposes or any agreement or contract between the state or any state agency and the United States Department of the Navy or the United States Department of Defense.

“State contract solicitation” means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

“Managerial or discretionary responsibilities with respect to a state contract” means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

“Dependent child” means a child residing in an individual’s household who may legally be claimed as a dependent on the federal income tax of such individual.

“Solicit” means (A) requesting that a contribution be made, (B) participating in any fundraising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee, serving on the committee that is hosting a fundraising event, introducing the candidate or making other public remarks at a fundraising event, being honored or otherwise recognized at a fundraising event, or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.

“Subcontractor” means any person, business entity or nonprofit organization that contracts to perform part or all of the obligations of a state contractor’s state contract. Such person, business entity or nonprofit organization shall be deemed to be a subcontractor until December thirty first of the year in which the subcontract terminates. “Subcontractor” does not include (i) a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or (ii) an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person’s capacity as a state or quasi-public agency employee.

“Principal of a subcontractor” means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a subcontractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a subcontractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a subcontractor, which is not a business entity, or if a subcontractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any subcontractor who has managerial or discretionary responsibilities with respect to a subcontract with a state contractor, (v) the spouse or a dependent child who is eighteen years of age

or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the subcontractor.

## **EXHIBIT F**

(Federal wage rate package will be inserted at the end after State wages for the final executed contract only. Refer to NTC – Federal Wage Determinations)

## **EXHIBIT G**

### **State Wages and Other Related Information**

Please refer to the Department of Labor website for the latest updates, annual adjusted wage rate increases, certified payroll forms and applicable statutes.

<http://www.ctdol.state.ct.us/wgwkstnd/prevailwage.htm>

### **Prevailing Wage Law Poster Language**

**THIS IS A PUBLIC WORKS PROJECT Covered by the  
PREVAILING WAGE LAW CT General Statutes Section 31-53**

**If you have QUESTIONS regarding your wages CALL (860) 263-6790**

**Section 31-55 of the CT State Statutes requires every contractor or subcontractor performing work for the state to post in a prominent place the prevailing wages as determined by the Labor Commissioner.**

### **Informational Bulletin**

**THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE** (applicable to public building contracts entered into on or after July 1, 2007, where the total cost of all work to be performed is at least \$100,000)

- (1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);
- (2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;
- (3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least \$100,000;
- (4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;
- (5) The internet website for the federal OSHA Training Institute is [http://www.osha.gov/fso/ote/training/edcenters/fact\\_sheet.html](http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html);
- (6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

- (7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;
- (8) Proof of completion may be demonstrated through either: (a) the presentation of a bona fide student course completion card issued by the federal OSHA Training Institute; or (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;
- (9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;
- (10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;
- (11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;
- (12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;
- (13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;
- (14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and
- (15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.
- (16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of <http://www.ctdol.state.ct.us/wgwkstnd/wgmenu.htm>; or by telephone at (860)263-6790.

**THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTIMATELY ARISE CONCERNING THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.**

November 29, 2006

## **Notice**

### **To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)**

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute. Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute. The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

#### **Forklift Operator:**

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.
- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

**Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.**

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

**CONNECTICUT DEPARTMENT OF LABOR  
WAGE AND WORKPLACE STANDARDS DIVISION**

**CONTRACTORS WAGE CERTIFICATION FORM  
Construction Manager at Risk/General Contractor/Prime Contractor**

I, \_\_\_\_\_ of \_\_\_\_\_  
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the \_\_\_\_\_  
Company Name

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

and all of its subcontractors will pay all workers on the

\_\_\_\_\_  
Project Name and Number

\_\_\_\_\_  
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

\_\_\_\_\_  
Signed

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Notary Public

Return to: Connecticut Department of Labor  
Wage & Workplace Standards Division  
200 Folly Brook Blvd.  
Wethersfield, CT 06109

Rate Schedule Issued (Date): \_\_\_\_\_

## **Information Bulletin**

### ***Occupational Classifications***

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53(d).

*Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification. If unsure, the employer should seek guidelines for CTDOL.*

**Below are additional clarifications of specific job duties performed for certain classifications:**

□ **ASBESTOS WORKERS**

Applies all insulating materials, protective coverings, coatings and finishes to all types of mechanical systems.

□ **ASBESTOS INSULATOR**

Handle, install apply, fabricate, distribute, prepare, alter, repair, dismantle, heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

□ **BOILERMAKERS**

Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

□ **BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS. STONE MASONS, TERRAZZO WORKERS, TILE SETTERS**

Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

□ **CARPENTERS, MILLWRIGHTS. PILEDRIVERMEN. LATHERS. RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIKERS, DIVER TENDERS**

Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs. Installation of insulated material of all types whether blown, nailed or attached in other ways to walls, ceilings and floors of buildings. Assembly and installation of modular

furniture/furniture systems. Free-standing furniture is not covered. This includes free standing: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two-position information access station, file cabinets, storage cabinets, tables, etc.

□ **LABORER, CLEANING**

- The clean up of any construction debris and the general (heavy/light) cleaning, including sweeping, wash down, mopping, wiping of the construction facility and its furniture, washing, polishing, and dusting.

□ **DELIVERY PERSONNEL**

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer or tradesman, and not a delivery personnel.

□ **ELECTRICIANS**

Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes, including the Installation or maintenance of telecommunication, LAN wiring or computer equipment, and low voltage wiring. \*License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.

□ **ELEVATOR CONSTRUCTORS**

Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. \*License required by Connecticut General Statutes: R-1, 2, 5, 6.

□ **FORK LIFT OPERATOR**

Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.

Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

□ **GLAZIERS**

Glazing wood and metal sash, doors, partitions, and 2 story aluminum storefronts. Installs glass windows, skylights, store fronts and display cases or surfaces such as building fronts, interior walls, ceilings and table tops and metal store fronts. Installation of aluminum window walls and

curtain walls is the "joint" work of glaziers and ironworkers, which require equal composite workforce.

□ **IRONWORKERS**

Erection, installation and placement of structural steel, precast concrete, miscellaneous iron, ornamental iron, metal curtain wall, rigging and reinforcing steel. Handling, sorting, and installation of reinforcing steel (rebar). Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation. Installation of aluminum window walls and curtain walls is the "joint" work of glaziers and ironworkers which require equal composite workforce.

□ **INSULATOR**

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings.

□ **LABORERS**

Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector (except metal bridge rail (traffic), decorative security fence (non-metal).

installation.), hand operated concrete vibrator operator, mason tenders, pipelayers (installation of storm drainage or sewage lines on the street only), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

□ **PAINTERS**

Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall hhg for any and all types of building and residential work.

□ **LEAD PAINT REMOVAL**

- Painter's Rate 1. Removal of lead paint from bridges. 2. Removal of lead paint as preparation of any surface to be repainted. 3. Where removal is on a Demolition project prior to reconstruction. • Laborer's Rate 1. Removal of lead paint from any surface NOT to be repainted. 2. Where removal is on a TOTAL Demolition project only.

□ **PLUMBERS AND PIPEFITTERS**

Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. \*License required per Connecticut General Statutes: P-1,2,6,7,8,9 J1,2,3,4 SP-1,2 S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.

## ☐ **POWER EQUIPMENT OPERATORS**

Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. **\*License required, crane operators only, per Connecticut General Statutes.**

## ☐ **ROOFERS**

Covers roofs with composition shingles or sheets, wood shingles, slate or asphalt and gravel to waterproof roofs, including preparation of surface. (demolition or removal of any type of roofing and or clean-up of any and all areas where a roof is to be relaid.)

## ☐ **SHEETMETAL WORKERS**

Fabricate, assembles, installs and repairs sheetmetal products and equipment in such areas as ventilation, air-conditioning, warm air heating, restaurant equipment, architectural sheet metal work, sheetmetal roofing, and aluminum gutters. Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, fascia, louvers, partitions, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers. To include testing and air –balancing ancillary to installation and construction.

## ☐ **SPRINKLER FITTERS**

Installation, alteration, maintenance and repair of fire protection sprinkler systems. **\*License required per Connecticut General Statutes: F-1, 2, 3, 4.**

## ☐ **TILE MARBLE AND TERRAZZO FINISHERS**

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

## ☐ **TRUCK DRIVERS**

~How to pay truck drivers delivering asphalt is under REVISION~

Truck Drivers are requires to be paid prevailing wage for time spent "working" directly on the site. These drivers remain covered by the prevailing wage for any time spent transporting between the actual construction location and facilities (such as fabrication, plants, mobile factories, batch plant, borrow pits, job headquarters, tool yards, etc.) dedicated exclusively, or nearly so, to performance

of the contract or project, which are so located in proximity to the actual construction location that it is reasonable to include them. **\*License required, drivers only, per Connecticut General Statutes.**

**For example:**

- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

☐ Any questions regarding the proper classification should be directed to:

**Public Contract Compliance Unit  
Wage and Workplace Standards Division  
Connecticut Department of Labor  
200 Folly Brook Blvd, Wethersfield, CT 06109  
(860) 263-6543.**

**Connecticut Department of Labor  
Wage and Workplace Standards Division  
FOOTNOTES**

□ Please Note: If the “Benefits” listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the “Benefits” section for the occupation lists only a dollar amount, disregard the information below.

**Bricklayers, Cement Masons, Cement Finishers, Concrete Finishers, Stone Masons**  
(Building Construction) and (Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employers may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

**Elevator Constructors: Mechanics**

a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Veterans’ Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.

b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

**Glaziers**

a. Paid Holidays: Labor Day and Christmas Day.

**Power Equipment Operators**  
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year’s Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

**Ironworkers**

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive work days prior to Labor Day.

**Laborers (Tunnel Construction)**

a. Paid Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he

fails, without cause, to work the regular work day preceding the holiday or the regular work day following the holiday.

**Roofers**

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

**Sprinkler Fitters**

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

**Truck Drivers**

(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 calendar days of service and works the last scheduled day before and the first scheduled day after the holiday, unless excused.

Rev. 7/1/19

**SEE BELOW FOR STATE WAGE RATES**

**INSERT STATE WAGES HERE**

# **Minimum Rates and Classifications for Heavy/Highway Construction**

ID#: 20-16216

## **Connecticut Department of Labor Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: #126-174

Project Town: Derby

State#: #126-174

FAP#: #1126 (113)

Project: Improvements to the Derby-Shelton Bridge #01659 (Derby)

<b>CLASSIFICATION</b>	<b>Hourly Rate</b>	<b>Benefits</b>
1) Boilermaker	33.79	34% + 8.96
1a) Bricklayer, Cement Masons, Cement Finishers, Plasterers, Stone Masons	35.72	33.16
2) Carpenters, Piledrivermen	34.53	25.64
2a) Diver Tenders	34.53	25.64
3) Divers	42.99	25.64
03a) Millwrights	34.94	26.19
4) Painters: (Bridge Construction) Brush, Roller, Blasting (Sand, Water, etc.), Spray	52.25	22.55
4a) Painters: Brush and Roller	35.62	22.55
4b) Painters: Spray Only	38.62	22.55
4c) Painters: Steel Only	37.62	22.55
4d) Painters: Blast and Spray	38.62	22.55
4e) Painters: Tanks, Tower and Swing	37.62	22.55

Project: Improvements to the Derby-Shelton Bridge #01659 (Derby)

5) Electrician (Trade License required: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	39.0	29.91+3% of gross wage
6) Ironworkers: Ornamental, Reinforcing, Structural, and Precast Concrete Erection	36.67	37.62 + a
7) Plumbers (Trade License required: (P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2) and Pipefitters (Including HVAC Work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4 G-1, G-2, G-8, G-9)	44.63	32.95
----LABORERS-----		
8) Group 1: Laborer (Unskilled), Common or General, acetylene burner, concrete specialist	31.0	22.15
9) Group 2: Chain saw operators, fence and guard rail erectors, pneumatic tool operators, powdermen	31.25	22.15
10) Group 3: Pipelayers	31.5	22.15
11) Group 4: Jackhammer/Pavement breaker (handheld); mason tenders (cement/concrete), catch basin builders, asphalt rakers, air track operators, block paver, curb setter and forklift operators	31.5	22.15
12) Group 5: Toxic waste removal (non-mechanical systems)	33.0	22.15
13) Group 6: Blasters	32.75	22.15
Group 7: Asbestos/lead removal, non-mechanical systems (does not include leaded joint pipe)	32.0	22.15
Group 8: Traffic control signalmen	18.0	22.15
Group 9: Hydraulic Drills	29.3	18.90
----LABORERS (TUNNEL CONSTRUCTION, FREE AIR). Shield Drive and Liner Plate Tunnels in Free Air.----		
13a) Miners, Motormen, Mucking Machine Operators, Nozzle Men, Grout Men, Shaft & Tunnel Steel & Rodmen, Shield & Erector, Arm Operator, Cable Tenders	33.23	22.15 + a
13b) Brakemen, Trackmen	32.26	22.15 + a
----CLEANING, CONCRETE AND CAULKING TUNNEL----		

14) Concrete Workers, Form Movers, and Strippers	32.26	22.15 + a
15) Form Erectors	32.59	22.15 + a
----ROCK SHAFT LINING, CONCRETE, LINING OF SAME AND TUNNEL IN FREE AIR:----		
16) Brakemen, Trackmen, Tunnel Laborers, Shaft Laborers	32.26	22.15 + a
17) Laborers Topside, Cage Tenders, Bellman	32.15	22.15 + a
18) Miners	33.23	22.15 + a
----TUNNELS, CAISSON AND CYLINDER WORK IN COMPRESSED AIR: ----		
18a) Blaster	39.72	22.15 + a
19) Brakemen, Trackmen, Groutman, Laborers, Outside Lock Tender, Gauge Tenders	39.52	22.15 + a
20) Change House Attendants, Powder Watchmen, Top on Iron Bolts	37.54	22.15 + a
21) Mucking Machine Operator	40.31	22.15 + a
----TRUCK DRIVERS----(*see note below)		
Two axle trucks	29.86	25.79 + a
Three axle trucks; two axle ready mix	29.97	25.79 + a
Three axle ready mix	30.03	25.79 + a
Four axle trucks, heavy duty trailer (up to 40 tons)	30.08	25.79 + a
Four axle ready-mix	30.13	25.79 + a
Heavy duty trailer (40 tons and over)	30.35	25.79 + a

Specialized earth moving equipment other than conventional type on-the road trucks and semi-trailer (including Euclids)	30.13	25.79 + a
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----POWER EQUIPMENT OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer (2 drums or over), front end loader (7 cubic yards or over), Work Boat 26 ft. & Over, Tunnel Boring Machines. (Trade License Required)	42.45	25.30 + a
Group 2: Cranes (100 ton rate capacity and over); Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer); Bauer Drill/Caisson. (Trade License Required)	42.11	25.30 + a
Group 3: Excavator/Backhoe under 2 cubic yards; Cranes (under 100 ton rated capacity), Gradall; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade (slopes, shaping, laser or GPS, etc.). (Trade License Required)	41.32	25.30 + a
Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper)	40.91	25.30 + a
Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24	40.28	25.30 + a
Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller.	40.28	25.30 + a
Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	39.95	25.30 + a
Group 7: Asphalt Roller; Concrete Saws and Cutters (ride on types); Vermeer Concrete Cutter; Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24	39.59	25.30 + a
Group 8: Mechanic, Grease Truck Operator, Hydroblaster, Barrier Mover, Power Stone Spreader; Welder; Work Boat under 26 ft.; Transfer Machine.	39.17	25.30 + a
Group 9: Front End Loader (under 3 cubic yards), Skid Steer Loader regardless of attachments (Bobcat or Similar); Fork Lift, Power Chipper; Landscape Equipment (including hydroseeder).	38.71	25.30 + a
Group 10: Vibratory Hammer, Ice Machine, Diesel and Air Hammer, etc.	36.54	25.30 + a
Group 11: Conveyor, Earth Roller; Power Pavement Breaker (whiphammer), Robot Demolition Equipment.	36.54	25.30 + a
Group 12: Wellpoint Operator.	36.48	25.30 + a

Project: Improvements to the Derby-Shelton Bridge #01659 (Derby)

Group 13: Compressor Battery Operator.	35.86	25.30 + a
Group 14: Elevator Operator; Tow Motor Operator (Solid Tire No Rough Terrain).	34.66	25.30 + a
Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator.	34.23	25.30 + a
Group 16: Maintenance Engineer/Oiler	33.54	25.30 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	38.11	25.30 + a
Group 18: Power Safety Boat; Vacuum Truck; Zim Mixer; Sweeper; (minimum for any job requiring CDL license).	35.53	25.30 + a

**\*\*NOTE: SEE BELOW**

----LINE CONSTRUCTION----(Railroad Construction and Maintenance)---

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20) Lineman, Cable Splicer, Technician	48.19	6.5% + 22.00
21) Heavy Equipment Operator	42.26	6.5% + 19.88
22) Equipment Operator, Tractor Trailer Driver, Material Men	40.96	6.5% + 19.21
23) Driver Groundmen	26.5	6.5% + 9.00
23a) Truck Driver	40.96	6.5% + 17.76

----LINE CONSTRUCTION----

24) Driver Groundmen	30.92	6.5% + 9.70
25) Groundmen	22.67	6.5% + 6.20
26) Heavy Equipment Operators	37.1	6.5% + 10.70
27) Linemen, Cable Splicers, Dynamite Men	41.22	6.5% + 12.20

**As of:** October 6, 2020

28) Material Men, Tractor Trailer Drivers, Equipment Operators	35.04	6.5% + 10.45
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Project: Improvements to the Derby-Shelton Bridge #01659 (Derby)

*Welders: Rate for craft to which welding is incidental.*

*\*Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

*\*\*Note: Hazardous waste premium \$3.00 per hour over classified rate*

***ALL Cranes: When crane operator is operating equipment that requires a fully licensed crane operator to operate he receives an extra \$4.00 premium in addition to the hourly wage rate and benefit contributions:***

- 1) Crane handling or erecting structural steel or stone; hoisting engineer (2 drums or over)***
- 2) Cranes (100 ton rate capacity and over) Bauer Drill/Caisson***
- 3) Cranes (under 100 ton rated capacity)***

Crane with 150 ft. boom (including jib) - \$1.50 extra

Crane with 200 ft. boom (including jib) - \$2.50 extra

Crane with 250 ft. boom (including jib) - \$5.00 extra

Crane with 300 ft. boom (including jib) - \$7.00 extra

Crane with 400 ft. boom (including jib) - \$10.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

--Connecticut General Statute Section 31-55a: Annual Adjustments to wage rates by contractors doing

*The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.*

*Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.*

*It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.*

*The annual adjustments will be posted on the Department of Labor's Web page: [www.ct.gov/dol](http://www.ct.gov/dol). For those without internet access, please contact the division listed below.*

*The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.*

*All subsequent annual adjustments will be posted on our Web Site for contractor access.*

*Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.*

***Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage***

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

**As of:** October 6, 2020

Project: Improvements to the Derby-Shelton Bridge #01659 (Derby)

**~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).**

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.